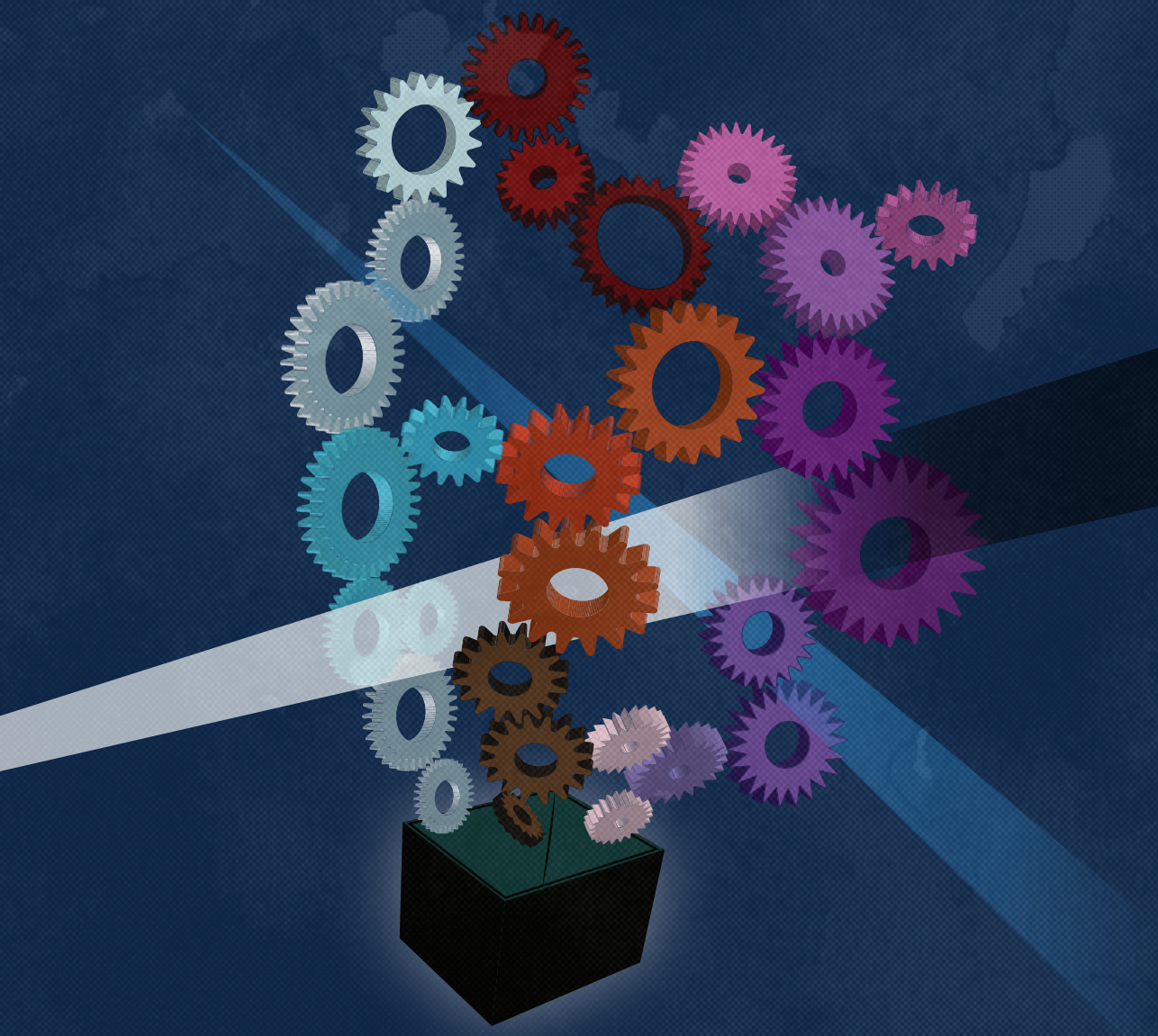
INSIDE THE BLACK BOX

Unpacking inter-organizational collaboration processes through a boundary spanning lens

Daniela Patru



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Inside the black box

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Contents

List of tables

List of figures

Fig. 1

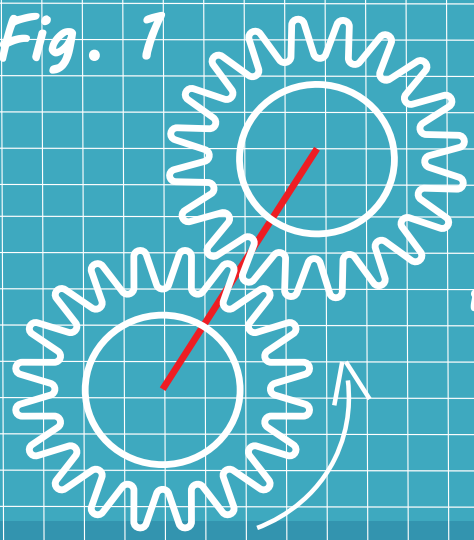


Fig. 2

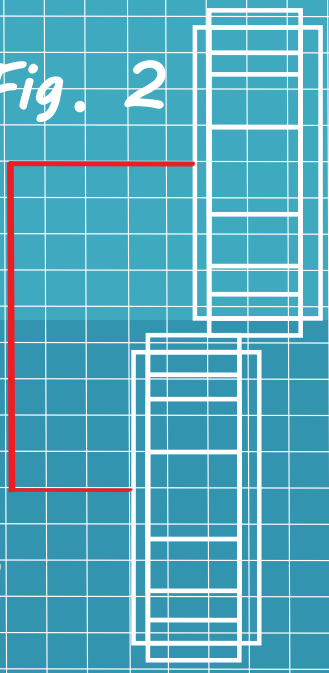
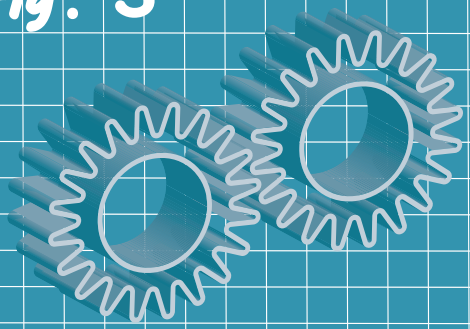


Fig. 3



CHAPTER 1
General introduction

> *"Well, we formulated that idea well, I think, but the problematic start was mainly because the ward nurses had to transfer patients before they had the right tools to do it." (Regos cardiology ward leader)*
>
> *"This was a good idea. I think it was good for the patients, it was good for the professionals, it was good for the financial thing, because I think we made it cheaper than… anything possible. It was good for the hospitals, because there was a certain level of autonomy for everybody. And yet it took so many hours of discussions and frustrations and so on... I don't have a good idea; I still don't understand why." (GynOncNet, General Hospital A, gynaecologist with an oncology focus)*

Inter-organizational collaborations are multilevel, multi-community entities, in which organizational actors with affiliations to various (often overlapping) departments, professions, hierarchical levels, and organizational cultures interact with the ultimate goal of reaching their respective organizational and/or individual interests. This complexity makes such collaborations difficult to set up, implement, enact, and manage; it also makes them fascinating objects of study.

And yet for all the anthill-like energy of inter-organizational collaborations, there are relatively few empirical studies that address their processes of development, and fewer still that frame them in a way that reflects their multidimensional mosaic-like nature. My own education as a student of management – in a Master's programme singled out for its attention to the social processes that underlie organizational development – went little further than outlining the classic stage models of inter-organizational development, and a few words of caution regarding partner selection and implementation challenges.

This doctoral thesis is written from a desire to understand what makes inter-organizational collaborations tick, and what organizational actors actually *do* to get them – and keep them – ticking. It brings together boundary spanning, knowledge boundaries, and a practice theory sensibility to shift the prevalent inter-organizational relations literature approach to inter-organizational collaboration closer to the image of it sketched above. By the end, it will have, hopefully, helped resettle the research eye from the structures, factors, and processes that influence the collaboration as a whole, to the interrelated interactions that are, themselves, its building blocks.

Inter-organizational collaboration: A look to the past and a view to the future

Over the past four decades, organizations have increasingly engaged in inter-organizational collaboration to reduce costs, acquire resources and knowledge, and increase legitimacy (Barringer & Harrison, 2000; Zhang & Huxham, 2009). Accordingly, the topic has been the focus of extensive organizational research (Hibbert, Huxham, & Ring, 2008). The inter-organizational relations literature has, as a result, developed into a complex and fragmented array of diverging and overlapping views (Oliver, 1990). But despite this longstanding history – both in practice and in research – inter-organizational agreements often end before their time. Every other alliance is reported to disband without achieving its desired outcome (Dyer, Kale, & Singh, 2001; Kale & Singh, 2009; Lunnan & Haugland, 2008; Zineldin & Dodourova, 2005). Moreover, those inter-organizational collaborations that do succeed encounter significant challenges, especially in their early stages (Kelly, Schaan, & Joncas, 2002; Langfield-Smith, 2008; Vlaar, Van den Bosch, & Volberda, 2006).

Post-formation dynamics have been recognized as crucial to the collaboration's functioning and, more often than not, more important than the initial set-up and design (Reuer, Zollo, & Singh, 2002). Moreover, recent scholarly work has acknowledged that aligning the partners' actions is as important as aligning their interests, contributions, and payoffs (Gulati, Wohlgezogen, & Zhelyazkov, 2012). Nevertheless, the inter-organizational relations literature has largely focused on the collaboration's structure and antecedents rather than on its developmental processes (de Rond & Bouchikhi, 2004). For instance, there is a wealth of studies examining the participating organizations' position in the network of relationships and their resulting power and influence (Hardy, Phillips, & Lawrence, 2003; Powell, Koput, & Smith-Doerr, 1996; Powell, White, Koput, & Owen-Smith, 2005; Van de Ven, 1976), the complexity of inter-organizational ties (Powell et al., 2005; Van de Ven, 1976), and the direction and intensity of resource and knowledge flows (Hardy et al., 2003; Lawrence, Hardy, & Phillips, 2002; Van de Ven, 1976). Extant research has similarly investigated the impact of a number of organizational attributes, such as the partners' size or stage of development (Stuart, 2000; Stuart, Hoang, & Hybels, 1999), their experience with inter-organizational relations (Gulati, 1995; Powell et al., 1996), or such organizational capabilities as portfolio management (Hoffmann, 2005; Wagner & Boutellier, 2002) and alliance capabilities (De Man, 2005; Kale, Dyer, & Singh, 2002).

The relatively fewer studies addressing the development of inter-organizational collaboration have generally done so either through empirical or conceptual models that describe their evolution (Doz, 1996; Ring & van de Ven, 1994) or by mapping out processes important to inter-organizational outcomes, such as learning (Hamel, 1991; Larsson, Bengtsson, Henriksson, & Sparks, 1998), trust (Adler & Kwon, 2002), fairness (Scheer, Kumar, & Steenkamp, 2003), legitimacy (Human & Provan, 2000), or power (Sydow & Windeler, 1998). Trust and good partner selection are two of the most widely mentioned conditions for success, along with organizational capabilities and the skills and behaviour of key decision makers (Mattessich, Murray-Close, & Monsey, 2001). Of them all, partner selection, as a critical stage in the development of inter-organizational collaborations, has received a great deal of attention in the last three decades (Dacin, Reid, & Ring, 2008), generating its own extensive list of characteristics that the potential partners should or should not have in order to ensure the collaboration's success. Moreover, researchers have studied the competences, behaviours, and fit between inter-organizational collaboration managers (Bachmann & Zaheer, 2008; Feyerherm, 1994; Higgins & Gulati, 2003; Schruijer, 2008; Seabright, Levinthal, & Fichman, 1992; Vangen & Huxham, 2003), and have produced several guidelines and process steps for good management (Das & Teng, 1997, 1999; De Man, 2005; Hoffmann, 2005; Sydow & Milward, 2003; Wagner & Boutellier, 2002). These studies are mostly prescriptive, and seemingly written with a view that being aware of the best practices and avoidable pitfalls should directly lead to better management practice (Hibbert et al., 2008). However, more recent studies on inter-organizational relations have also begun to explore how such capabilities develop, for instance in the case of alliances and networks (Mohannak, 2007; Sluyts, Matthyssens, Martens, & Streukens, 2011), alliance portfolios (Heimeriks, Klijn, & Reuer, 2009), and also buyer-supplier relationships (Liu & Zhang, 2014; Ziggers & Henseler, 2016).

Although these types of studies have made significant discoveries on inter-organizational dynamics, we still know relatively little about the actual activities required to achieve and sustain collaboration between partners (Reuer et al., 2002; Zeng & Chen, 2003). Research on inter-organizational collaboration dynamics has tended to omit what organizational actors actually do in order to govern the relationship and its operations (Ness, 2009). There are similarly few insights on how actors manage and integrate the interdependent tasks required for the collaboration's operations (Huiskonen & Pirttilä, 2002). Although a

number of studies have recently emerged that address inter-organizational collaborative work in practice (e.g. Berends, Van Burg, and Van Raaij (2011); Sydow, Windeler, Schubert, and Möllering (2012); Yström (2013)), there is still more to explore.

Accordingly, my dissertation's research objective is: *To open the black box of inter-organizational collaboration by delivering new insights into processes and practices involved in setting up, implementing, and enacting it.* I explore these aspects by viewing inter-organizational collaboration as a process that unfolds across a variety of boundaries: inter- and intra-organizational, strategic and operational, or determined by different professions. In this dissertation's three empirical studies, I conceptualize these different boundaries as *knowledge boundaries*, and therefore frame inter-organizational collaboration as the result of *boundary spanning work*. Next to the knowledge boundaries between the collaborating parties, my studies also examine the *boundary spanners* that navigate them, and the *boundary objects* that these actors (sometimes) use in order to do so. In the process, I study the development of inter-organizational collaboration from a progressively stronger practice perspective. In the following sections, I outline the conceptual and ontological approaches used in my dissertation, present my chosen empirical cases and research methods, and give a quick outline of my three empirical studies – and thereby, the structure of this book.

Collaboration across boundaries: Conceptual approaches to boundary spanning

Boundaries are typically described as differences, discontinuities, or conflicts between groups of actors (Levina & Vaast, 2008). They have been studied in a variety of disciplinary and empirical contexts, whether as social boundaries – which are more institutionalized and can draw "real" distinctions between groups – or symbolic ones – which are regularly negotiated, represented, and reconstituted by said groups (Lamont & Molnár, 2002). Both empirically and conceptually, boundaries can come with different degrees of permeability, especially when the term is used symbolically or metaphorically (Marshall, 2003). Thus, boundaries can denote a clear demarcation between dichotomous or mutually exclusive entities, a "permeable membrane" that allows some interaction between these two entities, or a socially constructed concept that

entities use to distinguish between their situation and that of others (Marshall, 2003). Research on collaboration in organizational contexts, in particular, has defined boundaries as differences between the knowledge or work practices of organizational groups (Carlile, 2004; Howard-Grenville & Carlile, 2006; Levina & Vaast, 2013). In this domain, studies have broadly taken one of two research directions. The first one addresses the creation, altering or maintenance of boundaries (Ashforth, Kreiner, & Fugate, 2000; Hernes & Paulsen, 2003; Sundaramurthy & Kreiner, 2008). The second research direction addresses boundary spanning, through the involvement of actors and use of objects (Bechky, 2003a; Carlile, 2002; Levina & Vaast, 2005; Star & Griesemer, 1989; Williams, 2002). In this latter research direction, the focus of the analysis is not the boundary itself, but the various fields of expertise which change or integrate as the boundaries between organizational groups are bridged (Levina & Vaast, 2005, 2006). As this latter research direction is the one I use in my dissertation, I elaborate on its points of focus below.

While actors and organizations span boundaries for a variety of reasons and in a variety of ways, two general modes of boundary spanning can be identified. One is transactive boundary spanning, where knowledge is transferred and/or translated between contexts (Levina & Vaast, 2013). In these situations, the actors that engage in boundary spanning develop a common language in order to transfer that knowledge, thus spanning what are referred to as syntactic boundaries (Carlile, 2002, 2004). They may also develop a common understanding of each other's dependencies and differences regarding their collaboration, essentially making explicit the tacit aspects of their knowledge. In so doing, they span the semantic boundaries between them (Carlile, 2002, 2004). In both cases of transactive boundary spanning, the actors reproduce the existing knowledge and relations between them (Levina & Vaast, 2013). Challenging or developing new knowledge and relations between groups is done, instead, through transformative boundary spanning (Levina & Vaast, 2013). This second boundary spanning mode comes into play when the groups must develop new, common practices, often in the context of conflicting interests. In so doing, the actors span the pragmatic boundaries between them (Carlile, 2002, 2004).

In the case of both modes, research on boundary spanning has focused on two main conceptual tools: boundary spanners and boundary objects. The former are actors who synthesize, translate, and share information across different contexts (Levina & Kane, 2009), linking disparate groups through their

very activities (Cross & Parker, 2004). In their long tradition built across several disciplines, they have been referred to as translators, knowledge-brokers, ambassadors, and gatekeepers (Williams, 2002), the terminology varying according to the role ascribed to them and to the context in which they perform their activities. Research on these key actors has extensively been concerned with outlining the wide array of roles that boundary spanners fulfil in order to facilitate inter-group collaboration, the characteristics required for them to effectively do so, and the challenges they encounter in the process (Levina & Vaast, 2005; Williams, 2002). We have therefore gathered significant insights into what boundary spanners should be doing and how they should be doing it. And yet, very few of the actors nominated to act as boundary spanners successfully do so in practice (Levina & Vaast, 2005). Moreover, studies that address the development of boundary spanners are few and far between. Levina and Vaast (2005) took the first steps in this direction by showing that actors become boundary spanners by participating – and being recognized as doing so legitimately – in the practices relevant to each of the groups they are attempting to link. Nevertheless, more work needs to be done on the topic, especially at the inter-organizational level.

Boundary objects are the second conceptual tool predominantly used to study boundary spanning. The term was coined by Star and Griesemer, in their classic study of cross-disciplinary collaboration (1989). As they indicated, and later research expanded upon, boundary objects are flexible epistemic objects with a common identity across several social or cultural worlds, which are used by the actors in those worlds in meaningful and useful ways. Thus, artefacts become boundary objects when actors use them to translate and transform information in order to share meaning across boundaries (Bechky, 2003a, 2003b; Carlile, 2002, 2004; Spee & Jarzabkowski, 2009). Some have noted that – as is the case with nominated boundary spanners – attempts to pre-specify boundary objects do not necessarily (if ever) lead to effective use (Levina & Vaast, 2005). Actual boundary objects-in-use tend to emerge according to the needs of the individuals engaging in the cross-boundary collaboration (e.g. Bechky (2003a)). The wide majority of studies have followed the "classic" approach to boundary objects, focusing more on their benefits for the parties that use them, rather than how and why they function the way they do (Carlile, 2004). Although generally thought of as tools that can enable these parties to develop shared meaning, boundary objects have also been shown to play a crucial role in the collaboration

between actors who lack consensus (Star & Griesemer, 1989; Swan, Kravcenko, & Newell, 2015), common interests, or mutual understanding (Lainer-Vos, 2013). Such differences in meanings and interests are usually present in inter-organizational collaborations, and yet, studies on the use of boundary objects in these contexts are relatively few (Oldenhof, Stoopendaal, & Putters, 2014).

By using these concepts to investigate the development of inter-organizational collaboration, my dissertation aims to contribute to both the inter-organizational relations and the boundary spanning fields of research. As I will show below, I do so by using different practice perspectives to examine specific areas of inter-organizational development.

The practice perspective: Ontological approaches to (inter-) organizational collaboration

There are a number of practice approaches in social sciences, each with their own specificities, but also with an array of conceptual similarities that have contributed to the practice turn in social and organizational studies (Miettinen, Samra-Fredericks, & Yanow, 2009; Schatzki, 2001). Practice perspectives have a relational view of the social world, conceptualizing it as a net of ongoing performances and assemblages, the results of which are resources for *other* performances. In this view, durability is achieved by inscribing these performances and assemblages in bodies, minds, and artefacts (Feldman & Orlikowski, 2011; Nicolini, 2012). Practice theories thus take a processual approach to social structures and other seemingly durable features of the world – and, within it, organizations – and, in so doing, uncover the effortful work that stands behind them. At the same time, they acknowledge the recursiveness between these durable aspects and the performance of practices themselves. Objects, minds, and bodies participate in the enactment of practices, and in so doing, can disrupt or alter them (Feldman & Orlikowski, 2011; Nicolini, 2012). This perspective strongly resonates with our contemporary experience of the world as increasingly interconnected and in flux – both in the case of organizations and society as a whole (Nicolini, 2012).

Practice perspectives have been used in a number of research areas, such as institutions (Lawrence & Suddaby, 2006; Zietsma & Lawrence, 2010), social innovation (Pantzar & Shove, 2010), accounting (Lounsbury, 2008), strategy (Jarzabkowski, 2005; Whittington, 2006), routines (Feldman & Orlikowski, 2011;

Feldman & Pentland, 2003), technology use (Orlikowski, 2000), organizational learning and knowledge (Gherardi, 2006; Lave & Wenger, 1991; Nicolini, 2011), and many others. In my dissertation, I use different practice perspectives to examine two key aspects of inter-organizational collaboration: aligning interests and aligning actions (Gulati et al., 2012).

To examine the first aspect of inter-organizational collaboration, I use a strategy-as-practice perspective to study how inter-organizational collaborations develop their strategy. The strategy-as-practice research stream continues and builds on the works of Mintzberg (Mintzberg, 1973; Mintzberg, Raisinghani, & Theoret, 1976; Mintzberg & Waters, 1985) and strategy process research (Langley, 1999; Pettigrew, 1992, 1997; Van de Ven, 1992), by using a practice sensitivity to uncover what actually takes place in organizations when strategy work is being done. Strategy-as-practice studies distinguish themselves by framing strategy not as an outcome or a given resource, but as a social process engaged in by a variety of organizational actors (Jarzabkowski, Balogun, & Seidl, 2007; Jarzabkowski & Spee, 2009). As a result, studies in this stream of research have focused on the work of formally assigned strategists – usually top or middle managers (Balogun & Johnson, 2004, 2005; Mantere, 2008; Rouleau, 2005; Rouleau & Balogun, 2011). In the process, they have examined strategy workshops and meetings (Hodgkinson, Whittington, Johnson, & Schwarz, 2006; Jarzabkowski & Seidl, 2008), the strategic planning process (Samra-Fredericks, 2003; Spee & Jarzabkowski, 2011), the discursive practices of strategy making (Eriksson & Lehtimäki, 2001; Vaara, Kleymann, & Seristö, 2004), as well as strategy tools and frameworks (Jarzabkowski, Spee, & Smets, 2013; Moisander & Stenfors, 2009; Seidl, 2007). In line with, and contributing to, this perspective, my dissertation examines the inter-organizational strategizing process by looking at how non-typical strategists articulate and issue sell their collaboration's strategy across syntactic, semantic, and pragmatic boundaries (Carlile, 2002, 2004).

To examine the second aspect of inter-organizational collaboration – aligning actions – I use two other practice perspectives to study how actors learn to effectively enact pre-specified inter-organizational operations. First, I use Lave and Wenger's (1991) practice perspective to study how the actors learn to enact these operations through *doing*. According to Lave and Wenger (1991), actors can only achieve mastery of a particular practice by engaging with it: making mistakes, experimenting, and, in the process, interacting with experts and other

novices who are, themselves, engaging with that practice. This perspective therefore frames their learning as an eminently emergent process, not driven by a pre-configured 'something' that needs to be acquired (Gherardi and Perrotta, 2014). One aim in my dissertation is to also capture the role of designed elements in the alignment of inter-organizational operations; as a result, I also make use of Schatzki's (2002, 2012) practice perspective to study the alignment process. Schatzki defines practices as open-ended, temporally-evolving sets of sayings and doings linked by four organizing elements: practical understandings, rules, teleo-affective structures, and general understandings (Schatzki, 2002, 2012). According to his perspective, while actors' sayings and doings can develop in a predominantly emergent fashion, they can also be guided by purposeful efforts to specify relevant organizing elements (Schatzki, 2012). And while designing these elements is no guarantee for the eventual enactment of the practice – since human activity remains uncontrollable – his perspective does acknowledge the potential role of designing efforts in the practice's development. Using both practice perspectives would allow me to focus both on the learning process itself and on its gradually changing focus, thus leading to a more holistic view of how actors learn to enact inter-organizational operations.

Research context and design

The context I have chosen to study inter-organizational collaboration is the Dutch healthcare sector. Healthcare provision in the Netherlands and around the world is heavily fragmented and burdened by ever increasing costs (Berg, Schellekens, & Bergen, 2005; Weinberg, Gittell, Lusenhop, Kautz, & Wright, 2007). In a recent trend supported by governmental mandates (RVZ, 2011; Weinberg et al., 2007), healthcare organizations have been attempting to overcome these challenges by engaging in inter-organizational collaborations (Wells & Weiner, 2007). The results of their efforts have been mixed, with over half of the inter-organizational agreements failing to implement their plans (Lasker, Weiss, & Miller, 2001), and many deteriorating over time (Gittell & Weiss, 2004) – often within their first year (Lasker et al., 2001). Overall, healthcare organizations' attempts to provide patient care that is sustainably coordinated across facilities are problematic, featuring poorly transferred patient information (Audet, Doty, Shamasdin, & Schoenbaum, 2005), overworked medical staff (Bodenheimer, 2008; Weinberg et al., 2007), and mismatches in organizational cultures (Hansson, Øvretveit,

& Brommels, 2011). Studies in the field have tried to address these issues by examining barriers and facilitators to inter-organizational collaboration (Ahgren & Axelsson, 2007; Bodenheimer, 2008; Stille, Jerant, Bell, Meltzer, & Elmore, 2005), or by describing the inter-organizational coordination mechanisms in use (Gittell & Weiss, 2004; Hansson et al., 2011; Lemak, Johnson, & Goodrick, 2004). However, little healthcare management research has been done on the actual practices and processes involved in setting up, implementing, and managing healthcare collaborations.

My dissertation tackles this societal problem with a qualitative approach. Specifically, I explore how inter-organizational collaboration developed across a variety of boundaries in two Dutch healthcare networks, by collecting information through semi-structured interviews, document analysis, and observations. Both networks were hub-oriented – that is, with one organization occupying a stronger position – and both featured the active involvement of middle managers. Beyond these similarities, the two networks had different characteristics, as I will present below.

The first network was a top-down oriented initiative developed around the issue of patient handovers. It consisted of a general hospital (Regos[1]) and ten aftercare organizations. Four of the hospital's nurse wards and three aftercare organizations (Ace, Bird, and Zeta) agreed to participate in my research. The two empirical studies I developed based on this network used a single exploratory embedded case study design (Yin, 2009). The data collected on this network included, first, 21 semi-structured interviews with middle managers, care coordinators[2], nurses, and other medical practitioners who were key in setting up and implementing the network (see Table 1.1 for an overview). My topic list covered the current state and practices of the collaboration, how the collaboration started and was planned for, its implementation and bottlenecks, and the participants' hopes for future developments. The interviews were conducted in January-November 2013, soon after the end of the network's implementation. They were conducted in Dutch or English, according to the participants' preferences, and lasted 45 minutes on average. All interviews were audio-recorded, and all but two were transcribed verbatim[3].

1 All organizational and actor names in my dissertation are fictitious, to maintain anonymity.

2 Care coordinators – also referred to as case managers or social workers – are defined in a variety of ways depending on the context they work in. In the case of this network, care coordinators are employees of aftercare organizations who are responsible for setting up a patient's rehabilitation trajectory by collecting and synthesizing that patient's information from several sources.

3 Two recordings were lost due to a malfunction of the recorder. The information from one interview was recovered via detailed note-taking immediately after the interview. Most of the information in the

Table 1.1. Overview of participants in the first network

Role of interviewee	Regos	Ace	Bird	Zeta	Total
Middle managers	1	1[*)]	1[*)]	1	4
Ward leaders	5[*)]				5
Nurses	5[*)]			1	6
Heads of department		1			1
Care coordinators		1	2		3
Doctors		1	1		2
Total	**11**	**4**	**4**	**2**	**21**

[*)] follow-up interview with one interviewee

I also examined 31 documents totalling 176 pages (see Table 1.2 for an overview), all of which originated in Regos, and were created at a range of moments throughout the network's set-up, implementation, and operations.

Table 1.2. Overview of documents in the first network

Documents	Number of documents	Number of pages
Development plans	5	67
Evaluation documents	4	19
Inter-organizational collaboration contracts	1	2
Training materials	6	51
Meeting minutes/agendas/materials	6	12
Newsletters	2	9
Official notices	2	4
Information for patients	3	9
Patient handover documents	2	3
Total	**31**	**176**

Finally, I carried out 16.5 hours of observation that generated 50 A5-sized pages of handwritten notes. The observations were conducted in the four Regos nurse wards, in December 2013 and March 2014. I gained access to the network through the hospital's CEO, who introduced me to the middle manager in charge of developing the hospital's collaborations with the aftercare partners. She, in turn, facilitated my contact with the three aftercare partners' regional managers, as well as with Regos ward leaders and nurses. Access to the partners' department managers, care coordinators, nurses, and doctors was gained via their regional managers.

second one (a follow-up interview) was lost.

The second network was a bottom-up oriented initiative of Dutch gynaecologists and care managers[4] to better organize gynaecological cancer care in their region (GynOncNet). It consisted of one academic hospital and three general hospitals, all of which had the facilities and medical expertise required to diagnose, perform surgeries on,, and care for patients with gynaecological cancer. Also relevant to the network's development was an insurance company operating in the region, whose decision on whether or not to support the network financially was critical for GynOncNet's operations. The data collected for this network mainly consisted of 318 textual artefacts that were generated by its strategizing actors in the 2007-2013 period: 66 email threads, 121 documents, 76 spreadsheets, and 47 packets of presentation slides. I also conducted semi-structured interviews with two key actors involved in the network's set-up and implementation, and observed two of the network's progress meetings. This data was supplemented by 7 national level guidelines and briefs, as well as contextual knowledge of the main processes and challenges associated with similar healthcare networks (drawn from exploratory interviews with three key actors in a similar cancer care network that developed in a different Dutch region). I gained access to the network through the network's project leader – a professor in the academic hospital – who introduced me to the gynaecologists and care managers involved in the network's development. Once the four hospitals approved my study of the network's development, I gained access to the textual artefacts mentioned above through the project leader's assistant, who had archived all the relevant documents, spreadsheets, packets or presentation slides, and email conversations associated with the network between the years 2007 and 2013.

All the data collected for my dissertation – interview recordings and transcripts, documents, and observation notes – was stored on a password-protected virtual drive owned by Radboud University. The interview recordings were labelled with the interviews' date, the initials of the interviewed actors, and acronyms indicating the organizations they belonged to (where relevant, using fictitious names). The interview transcripts featured file names following the same naming rules. The transcripts themselves featured document headers indicating the date of the interview, the actor's initials, their functions, and the organizations they were affiliated to (where relevant, using fictitious names).

4 In the Netherlands, the departments providing healthcare services feature two managerial functions: a care manager, whose function is to coordinate the medical and care related operations in the department; and a division manager, who is responsible for typical managerial tasks.

The collected documents maintained the original file names (adding the date or period when they had been drafted), and were not anonymized, predominantly because a large part of them consisted of non-editable PDF files. Throughout the dissertation, the data excerpts and descriptions maintain anonymity by using fictitious names and/or referring to actors by their functions, and to organizations by their type.

The analysis methods I used throughout my PhD research were broadly similar across the three empirical studies. All three studies conducted exploratory analyses, using specific sensitising concepts as starting points, as addressed in more detail in each chapter. I consistently began the analysis by making sense of the networks' development, and created detailed timelines through visual mapping (Langley, 1999). In the process, I identified the relevant actors, as well as the manifestations of the respective sensitising concepts in the narrative of each network's development. What consistently followed were recurrent rounds of theorizing and analysis, where – while consulting with my supervisors in their roles of devil's advocates (Nemeth, Brown, & Rogers, 2001) – I iterated between theory and data in search of a useful theoretical lens. Once this was found, I returned to the data and systematically coded it according to the new (complete) conceptual framework, and in the process confirmed and sharpened my earlier theorizing.

Structure of the dissertation

With my PhD research, I aim to develop rich qualitative insights into the as yet under-researched processes and practices involved in setting up, implementing, and enacting inter-organizational collaboration in the context of healthcare networks. The topic of inter-organizational collaboration is particularly wide; the conceptual tools I choose to help me research it – boundary spanning and the practice idiom – also feature significant variation. When studying the healthcare networks presented above, I match a particular inter-organizational aspect with a particular conceptual tool, and a particular ontological approach. Each such combination constitutes one empirical study, as I will show below and summarize in Table 1.3. Put together, they produce a holistic, multi-layered perspective on the processes and practices of inter-organizational collaboration.

Chapter 2 explores the interplay between inter- and intra-organizational developments in the set-up and implementation of my first healthcare network. I

focus on this interplay because, despite indications that it does impact the outcome of inter-organizational collaboration (Takeishi, 2001), its influence on the collaboration's actual development has remained under-researched (Holmqvist, 2003). In so doing, I hope to deliver new insights into the formation and post-formation dynamics of inter-organizational collaborations, and ultimately help lower their previously mentioned failure rates. I examine this interplay by using two sets of concepts: the activities of boundary spanners as my main conceptual focus, and Ring and Van de Ven's (1994) dynamic model of inter-organizational collaboration as a sensitizing analytical framework that would help me to structure the network's development. Using this dual framework, I identify how inter- and intra-organizational developments intersect through the activities of boundary spanners. Thus, this chapter mainly deals with intersections – the inter- and intra-organizational, the strategic and the operational – and the role of boundary spanners therein. As such, it provides a fitting point of departure for the issue of boundary spanning in inter-organizational collaborations. As the chapter also draws heavily from the healthcare management literature, it also introduces the reader to the research interests and knowledge gaps that are particular to this field and relevant to this dissertation's empirical context.

Chapter 3 takes a step further in both the inter-organizational and the conceptual aspects of my research, by focusing on the inter-organizational strategizing process of my second healthcare network. I study this process because, despite its key role in the set-up and development of inter-organizational collaboration, the number of studies that address it empirically are few and far between (see Deken, Berends, Lauche, & Gemser, 2016) for a notable exception). In particular, I use a strategy-as-practice perspective to explore two issues. First, if and how the different knowledge boundaries (syntactic, semantic, and pragmatic (Carlile, 2002, 2004) between the key actors impact their strategizing. Second, how these actors span the aforementioned knowledge boundaries in the process of strategizing – whether through the work of boundary spanners (Williams, 2002) or the use of boundary objects (Star & Griesemer, 1989). In the process, I also pay particular attention to the actors' use of textual artefacts, thus answering recent calls for research on the material artefacts through which strategic work is accomplished, such as PowerPoint slides (Kaplan, 2011), strategic plans (Spee & Jarzabkowski, 2011; Vaara, Sorsa, & Palli, 2010) or other artefacts (Whittington, Molloy, Mayer, & Smith, 2006). In line with my chosen strategy-as-practice perspective, I do not limit my study to the network's strategy

articulation, but also follow the actors' implementation efforts, namely: their attempts to issue sell the strategy at both inter- and intra-organizational levels. In this way, the chapter provides rich new insights on the complexities of inter-organizational strategizing, while also continuing Chapter 2's acknowledgement of the interplay between inter- and intra-organizational developments in this process.

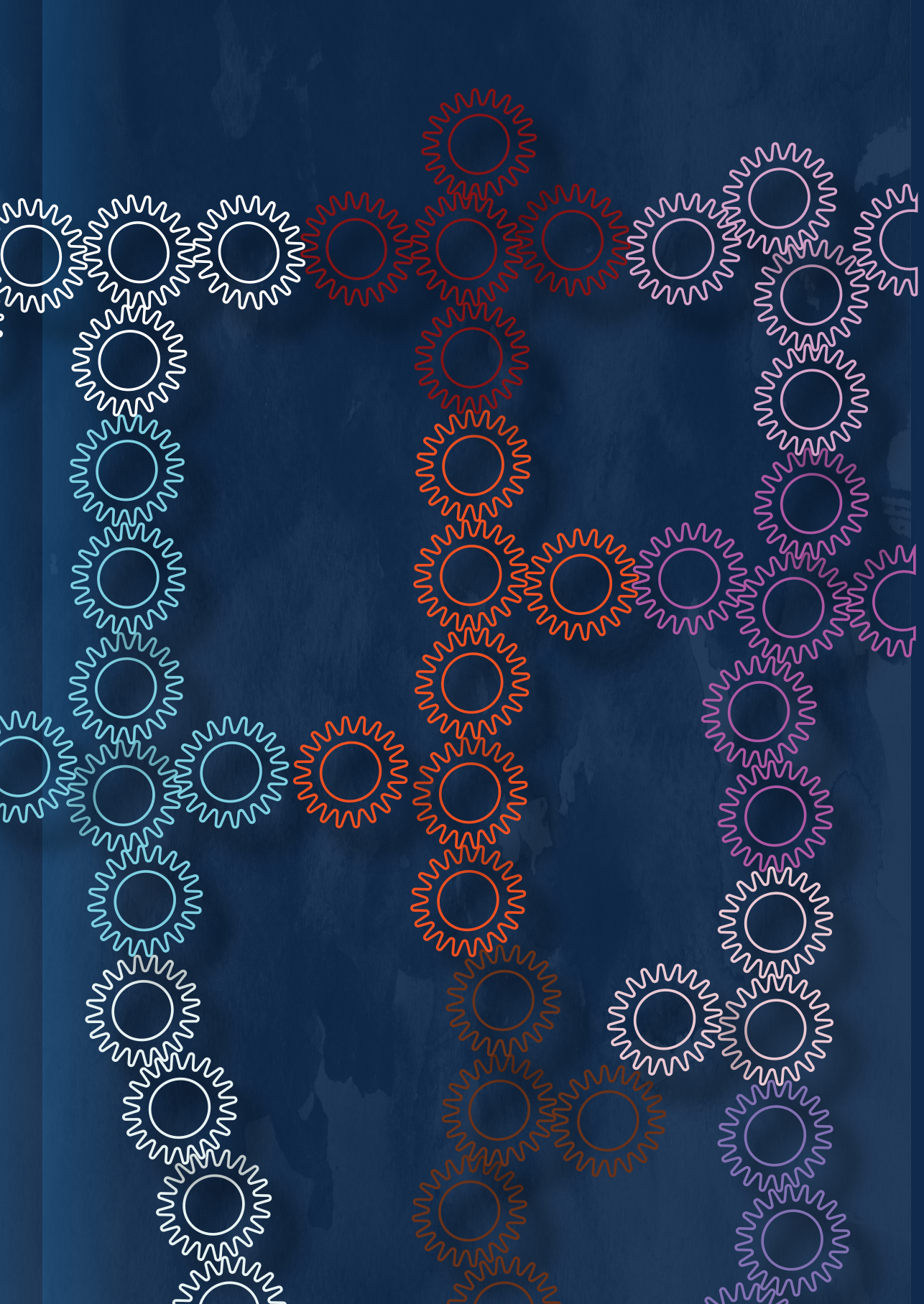
Table 1.3. Empirical focus, theoretical concepts, and ontological approaches per chapter

Chapter	Empirical focus	Key concepts	Ontological approaches
Chapter 2: Multilateral boundary spanners	Inter-organizational set-up & implementation • Interplay of inter- and intra-organizational processes	Boundary spanners	No practice perspective; instead, an explicit focus on inter-organizational processes (Ring and Van de Ven, 1994)
Chapter 3: Remote strategizing and issue selling as boundary spanning	Inter-organizational strategizing process • Articulation • Issue selling	Knowledge boundaries Boundary spanners Boundary objects	Strategy-as-practice (Jarzabkowski & Spee, 2009; Spee & Jarzabkowski, 2009)
Chapter 4: Thrown in at the deep end	Inter-organizational operational process • Design and emergence	Boundary spanners (their process of becoming)	Lave and Wenger (1991) Schatzki (2002; 2012)

Chapter 4 shifts focus to the development of inter-organizational collaboration at the operational level. As is the case for other post-formation dynamics (Reuer et al., 2002), this process has also known little empirical development (Gulati et al., 2012). To expand our insights into this process, I return to my first network and examine the implementation and enactment of its pre-designed inter-organizational operations. In particular, I frame successful inter-organizational collaboration as the effective spanning of boundaries between key organizational actors. As a result, I also frame its development as the process through which nominated boundary spanners become boundary spanners-in-practice (Levina & Vaast, 2005). I use two practice perspectives

to study this process of becoming, each perspective highlighting a different aspect of the process. First, I explore the nominated boundary spanners' development as a form of apprenticeship (Lave & Wenger, 1991), thus showing *how* these actors learn, and in particular, what this learning process looks like in an inter-organizational setting. At the same time, I also frame this process as the acquisition of the relevant boundary spanning practice's organizing elements (Schatzki, 2002, 2012); in so doing, I examine *what* they learn, and in particular, how pre-specified elements come into play. Each practice perspective provides unique insights into how key actors learn to work together across organizational boundaries. By combining these insights, my dissertation brings key contributions to our understanding of planning and implementation in inter-organizational collaborations. Moreover, it also answers a recent call for practice theory studies that use a toolkit approach to examine social processes (Nicolini, 2012).

Chapter 5 summarizes each study's findings, and then synthesizes them to articulate my academic contribution from three different perspectives: inter-organizational collaboration, boundary spanning, and healthcare management. Next, I address the practical implications of my findings. I then I reflect on my methodological and analytical choices, and suggest some avenues for future research. Finally, the dissertation ends with some concluding remarks on how inter-organizational (healthcare) collaborations are set up, implemented, and enacted across a variety of boundaries.



Chapter 2

Multilateral boundary spanners

Creating virtuous cycles in the development of healthcare networks

This chapter was published with minor textual differences as: Patru, D., Lauche, K., van Kranenburg, H., Ziggers, G.W. (2015) Multilateral Boundary Spanners: Creating Virtuous Cycles in the Development of Health Care Networks. *Medical Care Research and Review, 72*(6), 665-686.

Moreover, an earlier version of this chapter was presented at the 2014 Academy of Management Conference as: Patru, D., Lauche, K., van Kranenburg, H., Ziggers, G.W. (2014) Development through Fractals: Strategic and Operational Cycles in Healthcare Collaborations. *Academy of Management Proceedings, 2014* (1).

Understanding how healthcare networks achieve their goals is critical for managers and researchers alike. The present chapter addresses this issue by applying qualitative methods to retrospectively study the involvement of boundary spanners in the set-up and implementation of a healthcare network in the Netherlands. I found that boundary spanners who acted multilaterally (i.e. both within and across organizations) could successfully represent their organizations' interests at the network level and implement the required intra-organizational developments. By acting multilaterally, these boundary spanners generated virtuous cycles in the development of the network, whereby their successful actions supported the actions of their subordinates in setting up and implementing network agreements. In contrast, boundary spanners who had not been acting multilaterally before the network's kick-off were insufficiently prepared to enact their network-related tasks, and only successfully did so once they began operating both within and across organizations.

Introduction

Healthcare networks are one of the main responses to system fragmentation and service duplication (Wells & Weiner, 2007), which has led to a variety of network forms (Bazzoli, Shortell, Dubbs, Chan, & Kralovec, 1999) that have been widely researched. To encompass this diversity, I define a healthcare network – based on Nauenberg, Brewer, Basu, Bliss & Osborne's (1999) definition – as a group of three or more autonomous providers that collaborate inter-organizationally to achieve a particular objective.

Years of healthcare management research have yielded several factors that influence organizational or network outcomes, such as the degree of network integration and complexity (Nauenberg et al., 1999), the partners' centrality in a healthcare network (Peng, Lo, Lin, & Yu, 2006), and leadership and motivation (Provan, Nakama, Veazie, Teufel-Shone, & Huddleston, 2003). Consistent among most studies of this type is that they address how antecedents impact *either* the organization *or* the network, as if these two levels were independent of each other. As a result, we know relatively little about the ways in which inter-organizational network agreements are enacted intra-organizationally by the network partners, or how this enactment in turn affects network-level developments. This is a significant oversight, since research has shown that inter- and intra-organizational developments facilitate each other,

and that their interplay ultimately impacts the outcome of inter-organizational collaboration (Takeishi, 2001). Since little more than half of inter-organizational collaborations in the healthcare sector survive their first year, and many of those fail to implement their plans (Lasker et al., 2001), it is important to shed light on the interplay between the inter- and the intra-organizational levels and to stop treating the organization as a black box when analysing inter-organizational relationships.

My study aims to examine this interplay by drawing on the concept of boundary spanners – organizational actors whose role it is to link two or more groups of people that are separated by location, hierarchy, or function (Cross & Parker, 2004). Boundary spanners enable collaboration between groups (actors, departments, branches, organizations, cultures, etc.) by sharing information between them and translating it to suit the groups' respective understanding and needs. In the context of inter-organizational healthcare collaborations, boundary spanners' ability to effectively and efficiently liaise between organizations has repeatedly been recognized (Gittell & Weiss, 2004; Hansson et al., 2011; Lemak et al., 2004). However, neither their involvement in the elaboration of such inter-organizational agreements, nor their role in the interplay between inter- and intra-organizational developments has been addressed in detail.

I explored these as yet under-researched areas by applying qualitative methods to study the involvement of boundary spanners in the set-up and implementation of a healthcare network in the Netherlands. I conducted semi-structured interviews with relevant organizational actors (healthcare managers, care coordinators, nurse ward leaders, nurses, doctors) and examined relevant documents. My analysis used two sets of concepts: the activities of boundary spanners – my main conceptual focus – and Ring and Van de Ven's (1994) dynamic model of inter-organizational collaboration – a sensitizing analytical framework that helped me structure the network's development. I address this conceptual framework below, along with my methods and findings.

By identifying how boundary spanners operate at the intersection of inter- and intra-organizational levels and uncovering how this contributes to the development of a healthcare network, I advance both the healthcare management and boundary spanner literatures and make a number of contributions. First, my study aids the efforts of healthcare leaders engaged in network management. I identify boundary spanners as the key planners and implementers in a healthcare network, and highlight a series of implications about their activities,

and the ways in which they relate to each other within and across organizations. Moreover, I find indications that successful network development hinges on the efforts of two leaders: a strategic-level one, to align the organizations' interests, and an operational-level one, to align their operations.

Second, my focus on the boundary spanners' involvement in the intra-organizational implementation of inter-organizational agreements contributes to healthcare network research by articulating how healthcare organizations jointly move from outlining a common goal to achieving it in practice. In the process, I explain the success and failure of different actors' steps, as well as the mechanisms through which the outcomes of their efforts were improved over time. Thus, I answer a call for further research on how healthcare collaborations develop after their initial set-up (Wells & Weiner, 2007).

Finally, my findings build on and expand the boundary spanning literature by bringing together two of its subfields: boundary spanning *within* and *across* organizations. In so doing, I uncover the underlying complexity of boundary spanners' role in inter-organizational contexts and show that leveraging the interplay of inter- and intra-organizational developments is crucial for accomplishing their tasks.

Conceptual framework

The boundary spanning literature has built a long tradition across a variety of contexts and research streams in the past thirty years. Studies have investigated boundary spanning between departments within an organization (Bechky, 2003b), between organizations (Bartel, 2001; Tushman & Scanlan, 1981), and between different cultures and/or geographic locations (Cross & Parker, 2004; Levina & Kane, 2009; Luo, 2001).

Boundary spanners facilitate the joint work of distinct groups by collecting, synthesizing and translating information across professions, cultures, or organizations. Depending on the organizational setting and underlying goal, this boundary spanning can take on a variety of dimensions. In predominantly operationally oriented contexts, such as patient handovers (Gittell & Weiss, 2004), boundary spanners synthesize and share information with the underlying goal of ensuring and managing communication between sites (Levina & Kane, 2009). When brokering an agreement between groups (Sullivan & Skelcher, 2002), they collect, share, and translate information (Hansson et al., 2011). Building

trust and developing the relationship between partners (Luo, 2001) similarly require information transparency and translation. Finally, when pairing their positioning as an information processing hub with the required authority and creativity, boundary spanners can also lead organizational innovation (Williams, 2002).

Most of the literature has framed these activities as *roles* that boundary spanners fulfil, essentially conceptualizing boundary spanners as facilitators to inter-group collaboration. This is particularly the case for research conducted in inter-organizational contexts, where most studies simply acknowledge that the presence of a boundary spanner supported the development of collaboration (e.g. Lemak et al. (2004)). The other types of studies prevalent in the boundary spanning literature are those chronicling the skills and characteristics required by boundary spanners to fulfil these roles, and the challenges they encounter. Boundary spanners should be skilled negotiators and facilitators (Sullivan & Skelcher, 2002), psychologically flexible (Bartel, 2001), and on a more personal level, reliable, diplomatic, caring and committed, to name but a few traits (Williams, 2002). At the same time, the string of challenges that boundary spanners consistently deal with – such as the high amounts of stress resulting from unclear and often conflicting expectations from the groups they liaise between – frequently lead them to burnout (Singh, Goolsby, & Rhoads, 1994). Some more recent studies have begun to address the process through which boundary spanners acquire these skills (Levina & Vaast, 2005). However, to my knowledge, there have been no studies that focus on the specific skills or challenges associated with boundary spanners that operate at the interplay between inter- and intra-organizational levels, nor the roles they fulfil when doing so.

I take the first steps in this direction by exploring how boundary spanners are involved in the interplay of inter- and intra-organizational developments. In order to do so while still keeping track of the different stages of a healthcare network's evolution, I use the inter-organizational collaboration model proposed by Ring and Van de Ven (1994) as an analytical framework. This model conceptualizes inter-organizational collaboration as a repetitive sequence of negotiations, commitments, and executions, all of which are assessed on efficiency and equity. In the negotiations stage, partners make sense of and bargain for their interests and contributions, and thus form joint expectations. In the commitments stage, they pledge themselves to meet these expectations.

In the executions stage, these commitments should be honoured in practice when partners actually start working together. These stages can overlap to some extent, and each stage can require several rounds of interactions until it is resolved. Moreover, subsequent iterations of negotiations, commitments, and executions cycles can come into effect as the collaboration continues, as a result of conflicts, changing priorities, developments in the external environment, and other such factors.

The stages that Ring and Van de Ven (1994) propose make it possible to identify at which points inter- and intra-organizational developments in the network intersect through the activities of boundary spanners. For instance, the negotiation and commitment stages could very likely take shape through the efforts of boundary spanners acting across organizational boundaries, as negotiating and forging commitment are part of their activities as identified by the literature. Executing inter-organizational agreements also implies some form of liaising across organizational boundaries, where boundary spanners again could be involved – for instance to manage communication. However, all of these inter-organizational activities would need to be supported by intra-organizational developments; for instance, a new inter-organizational procedure would require changes in intra-organizational work practices, where boundary spanners could be involved as leaders or innovators. In this way, all three stages through which collaboration partners might (repeatedly) pass could develop at the interplay of inter- and intra-organizational levels. I present below how this inter-organizational collaboration model and the boundary spanner concept played a part in my analysis of the set-up and implementation of a Dutch healthcare network, and then continue with my resulting insights.

Methods

Empirical context

The healthcare network I examined consisted of a general hospital (which held a central position in the network) and ten aftercare organizations in the Netherlands. My study involved four of the hospital's nurse wards, and three of its aftercare partners (two nursing homes and one home care organization). I refer to these organizations as Regos, Ace, Bird, and Zeta, respectively – fictitious names, chosen to maintain anonymity.

The network was kick-started by Regos in the summer of 2010, when the Dutch government stopped reimbursing hospitals for services that did not provide actual medical care – among which the patient handovers enacted by Regos's department of transfer nurses. Regos thus decided to make its department of transfer nurses redundant by introducing a new patient handover procedure. This procedure put the aftercare organizations in charge of "recruiting" patients from the hospital instead of waiting for the hospital to contact them whenever a patient might require their services. The aftercare organizations that joined the network agreed to regularly contact the hospital (via a care coordinator or dedicated nurse) in order to promote their services, announce their available beds, and generally advise the ward nurses on the patient handovers when required. They would also be responsible for arranging some administrative issues that were required for the patients' insurance package to cover their aftercare services (something that the hospital's specialized transfer nurses had originally arranged). The remaining patient handover tasks were allocated to the Regos ward nurses, who would counsel the patients on the type of aftercare (and particular aftercare facility) they required, and liaise with the aftercare partners to arrange the required information transfer.

Research design

I conducted a qualitative and exploratory embedded single case study design (Yin, 2009), with two units of analysis: the higher-level relationships between the hospital and its partners, and the operational level patient handovers between Regos' nurse wards and the aftercare partners' facilities. I included four Regos nurse wards (neurology, pulmonary disease, surgery, and cardiology), and one aftercare facility from Ace, Bird, and Zeta. All four Regos wards could discharge patients into the care of the three aftercare facilities. Of the four wards, one had been successful from the start (surgery), one had improved over time (cardiology), and two wards had consistently problematic handovers (neurology and pulmonary disease). While the handover process was likely to be more complex in some wards than others (depending on the complexity of patient cases and the number of unforeseen developments in their hospitalization period), the handover procedure's steps were the same from one ward to another. Moreover, while the neurology patients were much more complex and unpredictable than pulmonary disease patients, both wards consistently encountered problems with the handover procedure. In addition,

while the cardiology patients could have similarly unpredictable hospitalizations as neurology patients, the cardiology ward's handovers improved over time, while those of the neurology ward did not. As a result, I could confidently expect that the varying success of patient handovers across wards did not mainly result from the particularities of the wards' patients.

Data sample

Data was mainly collected through semi-structured interviews with members of Regos, Ace, Bird, and Zeta who were part of the set-up and implementation processes of the network and/or were involved in the organizations' operations. The interviews were retrospective, and were held in January-November 2013. I chose semi-structured interviews, as interacting with the participants would help me to understand the sector and organizational contexts (King, 1994). In addition, I consulted relevant Regos documents (project development proposals, cooperative agreements, meeting minutes, etc.) to provide additional insights into organizational processes and thus compensate for potential weaknesses in using interviews as the only data collection technique (Lee, 1999). Tables 2.1 and 2.2 give an overview of these primary and secondary sources.

Access to Regos members and information was obtained through its CEO, who introduced me to the middle manager[5] in charge of the network (whom I will later refer to as Ellen). Through her, I gained access to ward leaders and nurses in the four Regos nurse wards, and middle managers in the targeted partners. Finally, access to nurses, doctors, care coordinators, and department managers in the aftercare organizations was obtained via their middle managers. The interviews lasted 45 minutes on average, were held in English or Dutch according to the interviewees' preferences, and were audio-recorded. I conducted interviews with 21 participants. Follow-up interviews were held with 4 participants around 4 months after the initial interviews, in order to check the progress of the collaboration and ensure fact-checking. Nineteen interviews were transcribed verbatim; two recordings were lost due to recorder malfunction – of these, the information in one was recovered in detail via post-interview note-taking, whereas most of the second one (a follow-up interview) was lost. While the examined documents were collected from both Regos and Zeta, they all originated in Regos.

5 Throughout the chapter, I use the term "middle manager" to refer to managers who are in charge of several other units (nurse wards or aftercare facilities) and who report directly to their organization's CEO.

Table 2.1. Overview of participants

Role of interviewee	Regos	Ace	Bird	Zeta	Total
Middle managers	1	1*)	1*)	1	4
Ward leaders	5*)				5
Nurses	5*)			1	6
Heads of department		1			1
Care coordinators		1	2		3
Doctors		1	1		2
Total	**11**	**4**	**4**	**2**	**21**

*) follow-up interview with one interviewee

Table 2.2. Overview of documents

Documents	Number of documents	Number of pages
Development plans	5	67
Evaluation documents	4	19
Inter-organizational collaboration contracts	1	2
Training materials	6	51
Meeting minutes/agendas/materials	6	12
Newsletters	2	9
Official notices	2	4
Information for patients	3	9
Total	**29**	**173**

Data analysis

I approached the analysis by placing Regos centre stage, since it underwent the most complex organizational changes during the network's development: its internal division of labour changed across all its nurse wards, whereas the aftercare partners made relatively minor adjustments to their operations. The data analysis process consisted of several rounds. My initial aim was to understand how agreements that were developed at the strategic level in the network influenced shop-floor developments, and vice-versa. I first used open coding to identify emerging themes in my transcripts. I then started theorizing these initial findings in terms of Ring and Van de Ven's (1994) dynamic model of inter-organizational collaboration. In so doing, I noted that, instead of one cycle of negotiations, commitments, and executions, there were two, each with their

own assessment levels, and with distinctive focus. Thus, one cycle was dedicated to the broader network-level agreements, and the other to these agreements' implementation and enactment.

I also noted that some people, mostly middle managers, played a prominent role in the network's development, and further theorized their involvement as boundary spanners. I first used visual mapping (Langley, 1999) to create a detailed timeline of the network's development, by consulting both interview and document data. I then categorized the events in the timeline according to Ring and Van de Ven's (1994) stages. For each stage, I identified the actors behind the already categorized events who operated as boundary spanners, and whether they acted within or across organizational boundaries. As Table 2.3 shows, these were the Regos and aftercare middle managers, the Regos surgery ward leader, the Regos ward nurses, and the aftercare care coordinators.

Table 2.3. Overview of identified boundary spanners

Organizational function	Groups being linked
Regos and aftercare middle managers	CEO and nurse wards/aftercare facilities (intra-org) Regos and aftercare organizations (inter-org)
Regos surgery ward leader	Regos middle manager and Regos ward nurses (intra-org) Regos and aftercare organizations (inter-org)
Regos ward nurses	Regos and aftercare organizations (inter-org)
Aftercare care coordinators	Regos and aftercare organizations (inter-org)

Findings

To illustrate how boundary spanners operated at the interplay of inter- and the intra-organizational levels, I first present a narrative of the network's set-up and implementation[6] followed by an analysis in terms of Ring and Ven de Ven's (1994) developmental stages. I then analyse the effects of boundary spanning activities.

6 The information presented in the narrative was drawn from interview transcripts and confirmed by consulting the documents at my disposal; see Tables 2.4 and 2.5 for some representative interview excerpts.

Narrative of the healthcare network's set-up and implementation

Once the Regos CEO decided to streamline the patient handover procedure and to make the transfer nurse department redundant, he assigned Ellen[7], a hospital middle manager, to set up the network. Over the following year, Ellen met with several representatives of aftercare organizations with which the hospital had informal relationships (managers, care coordinators, etc.) and took stock of the existing patient handover agreements. She then invited representatives of these organizations to an event where the hospital communicated its intent to implement a new patient handover procedure. Some organizations agreed to work together according to this new procedure (Ace), while others declined, as they felt that the patient handover process should only be the hospital's responsibility. Still others – which had not been invited to attend this event – approached Regos of their own initiative at a later stage (Bird and Zeta). At this point, Ellen began to have individual meetings with the middle managers of every aftercare organization that wanted to take part in the hospital's network. In these meetings, the managers clarified and agreed on the implications of their organizations working together as partners by addressing their organizations' interests, contributions, and expectations with regard to the developing healthcare network. Eventually, Ellen and her aftercare counterparts approached their respective CEOs to advocate for these organizations' participation in the network, at which point the CEOs met and signed a collaboration agreement. These collaborative agreements did not feature explicit quality or efficiency levels for the patient handovers, but only mentioned – in unspecific terms – that the organizations would strive to work well together, provide good joint services to their patients, and improve their collaboration. The agreement did specify that the CEOs would have yearly one-on-one meetings to evaluate how the collaborations were progressing, and to decide whether they would be extended for another year.

While Regos was in the process of forging these collaborations, one by one, Ellen also proceeded to give more practical shape to the relatively abstract agreements made between the organizations. First, she organized a large meeting where aftercare representatives (middle managers, care coordinators, doctors) joined various groups that aimed to develop specialized care chains (for CVA, COPD, etc), each group being coordinated by Regos employees. She then developed a general policy plan that addressed the main points of the

7 All names in this chapter are fictitious, in order to maintain anonymity.

patient handover procedure for the different types of patients, and shared it with the aftercare organizations – some of which offered feedback. She also asked Anna, the leader of the Regos surgery ward, to help her deal with the more practical aspects of implementing the healthcare network agreements in the hospital. Over the next few months, Anna informed the other ward leaders about the future handover procedure in an informative meeting, developed an in-process handbook of the procedure with the input of her Regos colleagues and at least one aftercare care coordinator (Mary, from Ace), and made herself available for any questions regarding the new patient handover procedure and coming changes. As this took place, the Regos transfer nurses were gradually finding new positions – either inside or outside the hospital – and the Regos ward nurses were expected to learn how to enact the new handover procedure.

The nurses should have been informed and instructed regarding this procedure both by the transfer nurses themselves and by their ward leaders; however, in most cases this did not take place. Few Regos ward nurses knew what to do when the network was kicked off. In order for the patients to be discharged into the care of aftercare organizations, the nurses resorted to calling the aftercare organizations to ask what information they needed and how to proceed, or asked for the help of the aftercare care coordinators that had begun to visit the wards, or for that of the surgery ward leader. Even so, a great number of patient handovers were delayed. In response, Ellen and Anna began to organize weekly Aftercare Meetings, where they met with all the care coordinators and other similar representatives of the aftercare partners in the network. As one of the results of these meetings, a training session was organized with the help of care coordinators from three aftercare organizations (among which Mary from Ace, and Wanda from Bird). However, not all nurses or ward leaders participated, and for those that did, the training was only somewhat helpful, as it did not succeed in transferring the knowledge that the ward nurses were missing (like the different types of aftercare options available for each specific patient case, and the specific services provided by the partners' dozens of aftercare facilities). The situation improved over time, as the nurses conducted more and more patient handovers, under the guidance of the aftercare care coordinators (in person or over the phone). Over time, the Aftercare Meetings decreased in frequency (first taking place once a month, then once every three months), and began to address innovative ideas rather than problem solving.

Boundary spanning activities in the network's set-up and implementation

In terms of Ring and Van de Ven's (1994) model of inter-organizational collaboration, the narrative above takes the form of two nested development cycles. In the first cycle, the hospital and each of its aftercare partners set up their inter-organizational agreements by aligning their interests and expectations. In the second, they took steps to execute their agreements in practice and align operations. Both cycles featured the involvement of boundary spanners, who carried out their work both across and within the organizations. I identify these activities and their place in the network's development below, and outline them – along with relevant interview excerpts – in Tables 2.4 and 2.5.

In the first cycle, only managers were involved. The future partners embarked on the *negotiations* stage when Ellen began meeting with the aftercare middle managers to discuss the implications of their organizations' collaboration. These boundary spanners acted inter-organizationally to share information, negotiate contributions, and implicitly generate trust. The *commitment* stage overlapped with the former, and consisted of both inter- and intra-organizational activities. The boundary spanners generated informal commitment in the inter-organizational negotiations, and – within their own organizations – provided their CEOs with sufficient information to sign the collaboration agreements, thereby facilitating the forging of formal commitment. In the *execution* stage, the partners took steps to enact their agreements in practice. An important part of this stage was the development of the patient handover procedure. As this involved a great deal of sense-making and expectation forming, and especially since this procedure required its own execution, I would argue that the first cycle's execution stage in fact consisted of a second, nested cycle of negotiations, commitments, and executions.

Actors from several hierarchical levels were involved in this second cycle. Beyond that first meeting aimed at developing the different care chains, most of the active actors were non-managerial employees. Of the boundary spanners I identified in my analysis, the Regos ward nurses were the only mainly passive ones until the network's kick-off. In the first iteration of this cycle, the Regos and aftercare actors who participated in the care chain development meeting engaged in sense-making by sharing and synthesizing information. They proceeded to bargain about the patient handover procedure when Ellen shared it with the aftercare care coordinators and received their feedback. The *negotiations* stage

of this first iteration thus resulted in an updated procedure, which, based on the formalized *commitment* of the contract signed by their CEOs, the hospital and aftercare partners proceeded to put in practice. Generally speaking, the *execution* stage of this second cycle consisted of two types of activities: first, the actions required to implement the agreements made in the negotiations stage, and second, the inter-organizational interactions between the Regos ward nurses and the aftercare organizations as they enacted the patient handovers. In the first iteration, the implementing actions were intra-organizational and mainly enacted in Regos, as the aftercare partners did not require significant changes to implement the new handover procedure.

These consisted of Anna's translation activities towards the other ward leaders, and whatever similar actions were taken by the ward leaders – or Ellen and Anna – to further share this information with the ward nurses. The Aftercare Meetings I mentioned before served two purposes. On the one hand, the Regos and aftercare actors used them to *evaluate* the efficiency of patient handovers, as well as their equity (whether actors played their parts and put in their efforts according to the agreements made in this cycle's negotiations stage). On the other, they used the meetings to bargain about and make sense of possible solutions and improvements – thus facilitating subsequent rounds of *negotiations*. With every Aftercare Meeting, the Regos and aftercare actors generated trust and increasingly *committed* to each other beyond the formal contracts that had been signed between their organizations.

Similarly to that of the first iteration, subsequent *execution* stages consisted of the actions required to implement each iteration's agreements, and the inter-organizational patient handovers that were being updated as required. In contrast to the first iteration, the implementing activities were both inter-organizational – such as the trainings organized by the aftercare coordinators in the hospital – and intra-organizational – such as the patient handover handbook developed by the Regos surgery ward leader.

As the overview of actions in Tables 2.4 and 2.5 indicates, all the boundary spanners I identified in my analysis were involved in activities that took place both within and across organizations – what I refer to in the following section as multilateral boundary spanning.

Ellen and her aftercare counterparts acted inter-organizationally to negotiate and commit to their inter-organizational agreements – and, to varying extents, to agree on and improve the new patient handover workflow – and

Table 2.4. Overview of relevant excerpts: Cycle 1 – Aligning interests by middle managers

Direction	Boundary spanning activity	Excerpt (interviewee)
Across	Negotiate contributions	*We've made a kind of service level agreement – without results. We only describe that we'd like to work together, give each other information; we've got appointments to check it, to evaluate it. (...) You have to have- you have to know each other's interest. Then you can talk- what can I do for the interests of [Regos] and when they know my interests they can think about what [Regos] can do for me. (Alex, Ace middle manager)*
	Generate trust	*The relationship is good, it's always been a good relationship (...) I think the agreements should be very clear, the alignment, coordination and communication (...) those are very important. And [they] were good. (Kate, Bird middle manager)*
	Share information	*We were invited to a meeting, we signed a contract with the [Regos] Board that we'll deliver [homecare] services. And since then we were invited to regular evaluation meetings, and kept up to date, and to say our piece about things. (Lilly, Zeta middle manager)*
	Generate commitment	*Ellen and I found each other in our way of thinking (...) and that gives it a kind of commitment. That's important. Because I think everyone can do the same as we do, but the personal touch and doing what you say, that's very important. I know some organizations, they make a lot of plans and agreements, but they are not consistent when enacting them. And [Regos] said: there are three partners - we are one of them - that they are committed to. Because we do what we say. (Alex, Ace middle manager)*
Within	Share information	*[The meetings were] between CEOs and between me and the managers. But I also... when my CEO talks to the other CEO he says join us, so you can explain. (Ellen, Regos middle manager)*
	Generate commitment	*I like to have good results, both financially and regarding quality. I showed [my subordinates] that if we go in collaboration with [Regos] the financial [results] will be good. The interesting things come, and people stay because it is interesting work. (Alex, Ace regional manager)*

intra-organizationally to generate informal commitment. Anna and the aftercare care coordinators acted inter-organizationally to agree on and improve the new patient handover workflow, and – in Anna's case, and to a certain extent, Ellen's, – intra-organizationally to translate and further share information about the workflow.

Table 2.5. Overview of relevant excerpts: Cycle 2 – Aligning operations by middle managers, care coordinators, ward nurses, and the Regos surgery ward leader

Direction	Boundary spanning activity	Excerpt (interviewee)
Across	Sense-make Innovate Negotiate responsibilities	*We have a protocol for everything that needs to be done here, we now call it an aftercare handbook. (…) And I shared it with all the aftercare organizations during the four-week Aftercare Meetings: we think we need to do it like this. And they helped us, they gave us information and they made corrections – also in our information folder; they said oh, you need to change this, or I think we need to say this to the patient and explain this, and then they started thinking with us which education we need to give to the wards. (Ellen, Regos middle manager)* *Of course, not everything went well; well, those were early days' problems. So, things went wrong, and we talked about it, and then measures were taken again or things were figured out. (Lilly, Zeta regional manager)*
	Generate commitment	*It's a good contact. What I really like is that you see the [Regos] nurses during the Aftercare Meetings, because they also started taking part since half a year ago. So, you can also see the faces of the people you're calling twice a week and that makes it a good contact and also, I think, makes it that you trust each other, and it's very nice. (Rhea, Bird care coordinator)*
	Enact patient handover procedure	

Direction	Boundary spanning activity	Excerpt (interviewee)
Within	Translate	*I went to meetings on the wards, to inform people, (...) and mostly the ward leaders were there, and a number of nurses, particularly the ones that had a lot to do with the aftercare area, and then they had to go tell the ones that weren't there. (Anna, Regos surgery ward leader)*
		One time there was just a meeting with all the [ward leaders], okay, right now we're going to start with this project (...) and then after that all the ward leaders came together and they got a kind of presentation [on] how to work with [the secure website], how to think about this really new thing. (Nick, Regos surgery ward leader[8])
	Share information	*For many nurses, as well as for the ward leaders, it was something like: Help, I need to start doing it now, but I don't know how to do it. So, it was a bit sudden. On the other hand, I think, well, as a ward leader I think I can expect that you keep track a bit of what's happening in your hospital, right? It's been mentioned quite a bit in the hospital that the transfer nurses will leave, we're going to do it differently. I was very active, well that was because Ellen asked me to help with this; I've always already tried to see how I could- on my ward it wasn't abrupt, let's say. Other ward leaders, they really sat and waited for a while like, well, we'll see what happens, when the transfer nurses leave we'll see what we'll do - there it was very abrupt. (Anna, Regos surgery ward leader)*
		At first it was just me and Ellen, afterwards our care coordinator also [got involved]. (...) I've talked to her about the plans, and I know her a long time because we worked together in another organization, and we did the same there, and we were very successful in that, so it was not so difficult to get the whole organization to think about that. (Alex, Ace regional manager)

The Regos ward nurses interacted intra-organizationally when receiving information about the workflow (to varying degrees), and were expected to enact the workflow inter-organizationally together with the aftercare care coordinators; later, they also interacted inter- organizationally with the care coordinators when receiving training and guidance. The care coordinators

8 Who replaced Anna when she changed positions, after having worked as the leader of another ward.

were informed about Regos' new handover procedure either inter- or intra-organizationally, depending on when they first became involved – during Ellen's stock-taking or later. Across these different levels, the Regos ward nurses were the only boundary spanners that were not involved in inter-organizational activities before the healthcare network kicked off – and thus the only group that did not interact multilaterally before then. I would argue that this was an important factor in the problems they encountered with the new procedure, and explain my reasoning below.

Multilateral boundary spanning

I use the notion of multilateral boundary spanning to refer to the involvement of *inter*-organizational boundary spanners in *intra*-organizational developments and vice-versa. I stress the word "involvement" here, as not all of the identified boundary spanners played an active role at both inter- and intra-organizational levels. Specifically, although the Regos ward nurses and the aftercare care coordinators interacted both inter-organizationally (for instance, with each-other) and intra-organizationally (for instance, with their superiors, when they were informed about the new Regos handover procedure), they were only passive players in the intra-organizational developments of the network (that is, they were involved in the developments, but did not actively influence them). That being said, this double involvement in issues both inter- and intra-organizational – whether actively influencing network developments or not – still gives us insights into how network- and organizational-level developments influence each other. Namely, the ties between the levels would seem to rest in the hands of actors who, by being involved in both inter- and intra-organizational concerns, tacitly span both levels.

Comparing the results of the actions of boundary spanners who interacted multilaterally to those who did not suggests that doing one or the other does have an impact on the development of inter-organizational collaboration. The boundary spanners who interacted multilaterally during the network's set-up and implementation – Ellen and her aftercare counterparts, Anna, and the care coordinators – benefited from a virtuous cycle where their positive results in one area of the network's development led to further positive results in another area, and so on. This virtuous cycle resulted from the fact that these actors operated both within and across organizations. For instance, Ellen could successfully contact and negotiate with potential aftercare partners because of

her position in the Regos hierarchy, which afforded her both the authority to deal on behalf of Regos (granted to her by the CEO) and sufficiently in depth knowledge of patient handover processes to understand the subject matter she was negotiating. At the same time, her deep understanding of the (potential) inter-organizational agreements afforded her the knowhow to successfully bring them to the attention of the CEO and take steps to ensure their execution. This also held for the aftercare middle managers. Finally, Anna's contact with the aftercare care coordinators gave her a better understanding of the patient handover requirements, which in turn helped her to instruct her own ward nurses – who conducted the best handovers – and the other ward leaders.

This was not the case for the Regos ward nurses, who were only involved intra-organizationally before the network's kick-off. The new tasks they were expected to enact were thoroughly new to them, to the extent that one care coordinator referred to these tasks as part of a different discipline than the one the nurses had been trained in. Thus, in contrast with the actors I previously addressed, the nurses' intra-organizational experience at that time did not ensure sufficient knowledge to help them understand their new inter-organizational tasks. The actors I interviewed in several organizations (both managers and operational employees) considered the ward nurses' problems with the new handover procedure to directly result from the procedure's rushed intra-organizational implementation in the Regos wards. While this was indeed the case, I would argue that not giving the nurses the opportunity to interact with the aftercare care coordinators before the network's kick-off – and thus not giving them access to the care coordinators' own understanding of the patient handover procedure and its requirements – aggravated the situation. Pre-kick-off contact with the care coordinators would have been a significant help, which is confirmed by a number of facts. First, by the example of the care coordinators themselves, who supplemented the information they had received from their own superiors about the network with their inter-organizational contact with Anna and Ellen. Second, by the fact that the ward nurses eventually gained the knowhow they needed to enact the new handover procedure through the consistent guidance they received from the care coordinators. And finally, by the fact that the surgery ward – the most successful one in terms of patient handovers – attributed its results to two factors: the fact that it featured nurses with dedicated patient handover tasks (who therefore interacted more often with the care coordinators), and the fact that these nurses had visited the

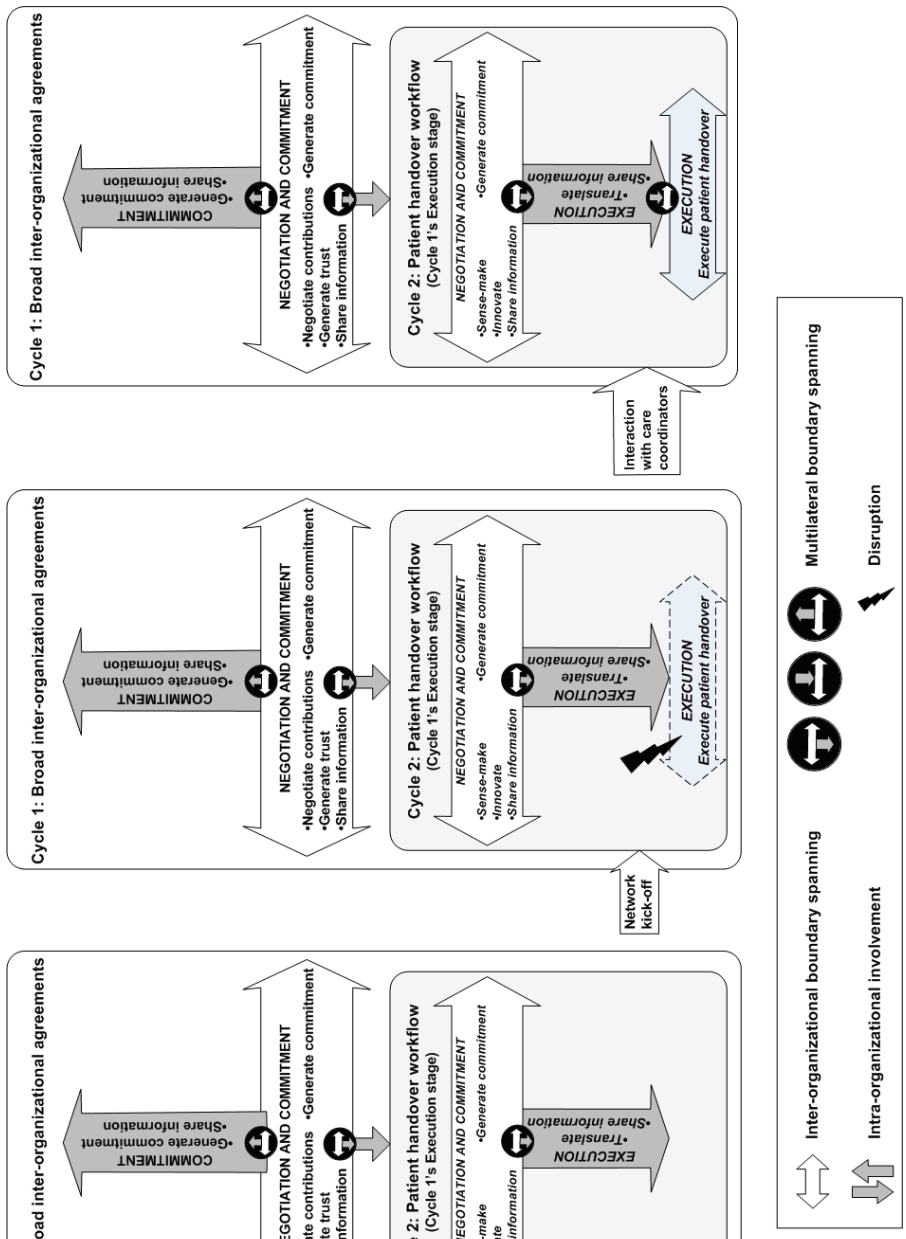


Figure 2.1. Multilateral boundary spanning in the healthcare network's development

different facilities of the aftercare organizations after the network's kick-off to get a better understanding of the aftercare half of the patient handover workflow.

As Figure 2.1 illustrates, the middle managers, Regos ward leader, and aftercare care coordinators all engaged in multilateral boundary spanning, by being involved in both inter- and intra-organizational developments. As a result, the outcomes of all their activities were successful – as indicated by the arrows with a continuous line. The Regos ward nurses, instead, were only involved *intra*-organizationally before the network's kick-off (at t1), which led to their unsuccessful execution of the patient handover procedure (at t2) – as indicated by the arrow with a discontinuous line. This situation improved over time through their *inter*-organizational interaction with the aftercare care coordinators, which eventually helped them to successfully enact the patient handover procedure (at t3). Overall, with multilateral boundary spanning leading to successful actions in all three instances illustrated in Figure 2.1, and with its single absence leading to an unsuccessful action, I would argue that my case yields the following implication: boundary spanners who act multilaterally are more likely to lead to successful network outcomes than those who do not do so. Acting multilaterally seems to be a prerequisite for successful network development.

Discussion

I investigated the interplay between inter- and intra-organizational levels in the development of healthcare networks by examining the involvement of boundary spanners in the set-up and implementation of a healthcare network in the Netherlands. In so doing, I aimed to understand how inter-organizational agreements are implemented through the day-to-day actions of organizational actors, and thus contribute to healthcare network theory and practice.

I found that boundary spanners were key players in both the set-up and implementation of inter-organizational agreements, and that most of them acted multilaterally. Those that did so generated a virtuous cycle in the development of the network. The knowhow they acquired through their involvement in intra-organizational issues helped them to better represent their organizations' interests at the network level, which gave them a better understanding of network requirements; this, in turn helped them to implement their share of the intra-organizational developments. In contrast, the boundary spanners who

did not act multilaterally were vulnerable to implementation problems that, in this case, resulted from insufficient intra-organizational preparation. Based on these findings, I propose multilateral boundary spanning as an essential mechanism for the successful set-up and implementation of inter-organizational agreements. To an extent, the notion that key intra-organizational actors should also be involved in inter-organizational developments (and vice-versa) has previously been implied by inter-organizational collaboration studies where successful internal handover practices were replicated inter-organizationally (e.g. Gittell and Weiss (2004)). Multilateral boundary spanning explicitly captures this interplay of inter- and intra-organizational levels, and presents a way to leverage its benefits for network development. When used consistently – both structurally (from the higher to the lower hierarchical levels) and over time as the network develops – multilateral boundary spanning becomes an all-encompassing activity, facilitating the emergence of synergies and mitigating gaps across the network's development.

My second finding was the fact that the healthcare network's development featured two distinct yet interconnected aspects: the broader inter-organizational agreements between the hospital and each of its aftercare partners, and the steps taken to actually execute these agreements in practice. This is consistent with Gulati et al. (2012) review of the alliance literature, in which they distinguish between two aspects of inter-organizational collaboration: aligning interests, and aligning operations. In terms of Ring and Van de Ven's (1994) model, this led to my identification of two nested collaboration cycles in the network's development: one aimed at developing and evaluating the network-level agreements, and another aimed at their implementation and the evaluation of operations. I also found that each cycle featured a key boundary spanner. The first cycle developed mainly through the actions of the Regos middle manager. The second progressively rested on the shoulders of the Regos surgery ward leader and, later, a nurse from the surgery ward with dedicated patient handover tasks who took over the ward leader's network-related duties when the latter changed positions. That a middle manager would play a key role in the development and evaluation of network agreements is confirmed to some extent by overlapping findings on the roles of middle managers and alliance managers, such as issue selling and championing, providing coordination and integration between the different actors involved, and managing and overseeing operations (Rouleau, 2005; Spekman, Forbes, Isabella, & MacAvoy, 1998). However, the

presence of a similarly key actor, responsible for implementing and evaluating these agreements at the operational level is – to the best of my knowledge – a new insight. I would thus posit that successful network development hinges on the alignment of both interests and operations – to borrow Gulati et al.'s (2012) terms – and that these in turn depend on the involvement of not one but two leaders: a strategic and an operational one (Bass & Milosevic, 2014).

The implications of my two main findings reinforce one another. The presence of the nested cycles in the network's development – and indeed that of two leaders – indicates that two types of relays are required for a network to develop successfully. First, on a structural level, the strategic and operational leaders need to consistently keep each other appraised of the inter- and intra-organizational developments occurring in their respective areas of interest. Second, the strategic and operational leaders need to skilfully navigate the transition of the network's focus from strategic to operational concerns as the network moves from set-up and planning to implementation, and into a period of business-as-usual. Multilateral boundary spanning is likely to ensure the success of both types of relays if consistently used, both structurally and over time. However, the deliberate enactment of multilateral boundary spanning is a practical challenge, and further research should be conducted on how it is enacted in practice.

Another area for future research could be the skills and challenges of multilateral boundary spanning. Since it essentially refers to a specific manner of deploying "regular" boundary spanning activities, it stands to reason that the skills and challenges of a competent multilateral boundary spanner are at the very least those already identified in the literature (such as reliability, diplomacy, and commitment (Williams, 2002), and stress and burnout (Singh et al., 1994), respectively). However, the specificities of their acting both across and within organizations would likely feature some extra requirements and challenges. For instance, to successfully act on both levels, they would need to have a sufficiently good understanding of the subject area they are representing their organization on, and also sufficient authority – either formal or informal – to represent their organization. Therefore, a multilateral boundary spanner would ideally be either a recognized expert in a particular area, or a well-informed actor with sufficient authority. Second, in order for their inter-organizational experience to be benefited from, they would have to be personally involved in the intra-organizational developments that follow. As to the challenges specific

to multilateral boundary spanning, these would likely stem from the boundary spanner's position as a key actor. In the network I studied, multilateral boundary spanners at both strategic and operational levels were looked upon as respected authorities in their organizations. Although this aided them in their inter- and intra-organizational work, it was also recognized as a sign of instability, since their currently well-functioning system would break down should these actors leave the organization or be on extended leave. While embedding a boundary spanner's knowhow in organizational practices is already made complex by its often tacit nature, I would posit that this would be even more of a challenge in the case of *multilateral* boundary spanners, who must liaise between more groups and across more levels. That being said, future studies on the development of healthcare networks should test and extend my assumptions on the skills and challenges of multilateral boundary spanning by actively pursuing these topics.

Finally, further research should also be conducted to counter the limitations of my study. First, my findings are based on a retrospective analysis of a network that was already in operation. As I gained access to it late in its development, I was unable to trace the network developments as they unfolded, and relied extensively on the interviewees' recollections of such developments. I mitigated potential recall bias on behalf of the interviewees by triangulating data (cross-checking interviewees' statements about the network's development) and methods (also consulting relevant documents). While my retrospective design did have the benefit of providing an overview of the network's entire development – from its set-up to the point that it was in operating modus – a future longitudinal study, pursuing the issue of multilateral boundary spanning from the network's first stages, should yield yet more insightful results. Moreover, as with any type of case study research, based on a limited number of observations, the generalizability of my results is limited by their embeddedness in their organizational contexts. My in-depth examination of one healthcare network's development gave strong indications that multilateral boundary spanning was an essential mechanism for the network's set-up and implementation, and future research should be conducted to confirm this in other contexts. For instance, the network I studied developed in a mainly top-down manner, both from the point of view of organizational hierarchy (CEOs informing middle managers, who informed ward leaders, etc.) and network centrality (the hospital making decisions, with its network partners being involved, but mainly following along). This top-down approach made the flow

of information and decisions in the network follow rather straightforward paths, which in turn allowed the multilateral nature of the boundary spanning activities to shine through. Future research should also investigate multilateral boundary spanning in networks that developed in a more emergent fashion, and determine its impact. Second, the network was also quite operationally focused, with its main objective essentially consisting of setting up a new type of service chain between the partners. Whether an innovation-focused network would also feature two negotiation-commitment-execution cycles, or multilateral boundary spanning as a crucial factor remains to be seen. More broadly, it is likely that my findings are relevant for a hospital-centred network in the Dutch healthcare sector; future research on non-hospital-led healthcare networks developing in other countries would help improve my understanding of the findings.

My study also offers a number of practical implications. First, in order to avoid potential problems in the implementation of the inter-organizational agreements, managers should ensure that the operational personnel affected by the network agreements should not only be involved in the development of new procedures, but also be put in contact with their inter-organizational counterparts well before the network's kick-off. Second, key managers and operational personnel involved in either inter- or intra-organizational activities in the future network should be encouraged to participate in both levels. The actors known to be acting both inter- and intra-organizationally should accordingly be provided with the proper means (i.e. time, job description) to both enact this double set of tasks and cope with the stress that past research on the challenges of boundary spanners (Singh et al., 1994) suggests these tasks can imply. Without sufficient time and energy resources to carry out these multilateral activities, the boundary spanners involved would likely either underperform at one or both levels (in the short term), or suffer from burn-out and need to be replaced (in the long term). The organization would therefore risk either not generating a virtuous cycle around their key actors' actions, or suddenly losing its benefits as a key actor is removed and previously well-functioning relationships are disrupted. This latter point brings me to a final implication, which is that managers and staff occupying such key positions should be aware of the risks involved in being the person on which two intersecting lines of communication depend. Ideally, a balance should be sought between the potential benefits resulting from a centrally positioned actor and the potential stability of spreading that key actor's likely tacit knowledge among several other actors or organizations.


Proposal
Strategy

Chapter 3

Remote strategizing and issue selling as boundary spanning

Strategizing across knowledge boundaries in the context of an inter-organizational collaboration

This chapter explores the strategizing process of an inter-organizational collaboration by conceptualizing the key actors' strategizing interactions as collaborating across knowledge boundaries (syntactic, semantic, and pragmatic). Based on an extensive array of textual artefacts, generated in the development of a healthcare network in the Netherlands, I develop a number of findings. First, I show that the different knowledge boundaries between the strategizing actors impact the manner in which they strategize. In the context of my case, the actors who only spanned syntactic boundaries were able to strategize remotely, through textual artefacts that actually embodied rather than only facilitated their strategizing. When actors also spanned semantic or pragmatic boundaries, inter-personal strategizing was also required. Second, I highlight issue selling as a particular, as yet understudied, form of boundary spanning, where the imbalances of power and interest between the issue sellers and the decision makers also generate an imbalance in the parties' boundary spanning efforts. In my case, the network's strategists experienced a situation similar to issue selling when having to strategize with their Executive Boards and an insurance company in the region in order to secure approval and funding for the network. In this context, the parties' interactions were skewed, with the network initiating and carrying out most of the boundary spanning work. I found that this lowered the effectiveness of the boundary objects they produced and hindered the negotiation of new, common interests with the Boards and the insurance company. As a result, the strategizing parties consistently struggled to span the semantic and pragmatic boundaries between them. Finally, I highlight the notion of latent semantic and pragmatic issues between the parties, and their ultimately negative impact on the strategizing outcome.

Introduction

As already addressed in this dissertation's introduction, the extensive literature on inter-organizational collaboration (Hibbert et al., 2008; Oliver, 1990) has predominantly focused on the antecedents and structures of such collaborations; their developmental processes have been relatively less studied (de Rond & Bouchikhi, 2004). Strikingly, this also extends to inter-organizational strategizing, despite the similarly old and broad research tradition on the study of (intra-organizational) strategy. For instance, although inter-organizational collaboration studies have paid extensive attention to partner selection (Dacin et

al., 2008; Shah & Swaminathan, 2008) and the development of trust (Bachmann & Zaheer, 2008; Seppänen, Blomqvist, & Sundqvist, 2007), they seem to have taken for granted the eventual development of the collaboration's strategy. For such a key process in the set-up and development of inter-organizational agreements, there is still limited empirical research on how actors strategize in the context of an inter-organizational collaboration (see Bowman, 2016; Deken et al., 2016 for some notable exceptions).

In order to expand our understanding of this process, I turn to the strategy-as-practice perspective, which distinguishes itself by framing strategy not as an outcome or a given resource, but as a social process engaged in by a variety of organizational actors (Jarzabkowski et al., 2007). Studies in this tradition have made great strides towards uncovering the processes and practices through which strategy is made and implemented (Jarzabkowski & Spee, 2009; Vaara & Whittington, 2012). However, few of their insights have been developed at the inter-organizational level (e.g. Werle and Seidl, 2015[9]; Deken et al., 2016), making inter-organizational strategizing a still new organizational aspect to explore.

Thus, in the present study, I take a strategy-as-practice perspective on inter-organizational strategizing, paying particular attention to the role of boundaries in this process. As Chapter 2 has shown, inter-organizational collaboration develops at the intersection of inter- and intra-organizational levels, through the efforts of actors that span both inter-organizational and hierarchical boundaries. Moreover, as Chapter 4 will show, inter-organizational boundaries often overlap with disciplinary ones. All of these boundaries may (or may not) be relevant to inter-organizational strategizing, at different points in time, and in the interactions of different actors. In order to capture the actual impact of these boundaries on partner organizations' understanding of, and collaboration with, each other, I conceptualize the inter-organizational strategizing process as taking place across three different knowledge boundaries (Carlile, 2002, 2004): syntactic (differences in language/labelling), semantic (differences in meaning), and pragmatic (differences in interest). In particular, I focus on two issues. First, I explore if and how the different knowledge boundaries between actors impact the way they strategize. Second, I examine how these knowledge boundaries are spanned in the process of strategizing, whether through the interaction of key

9 Although it examines how an organization explored a strategic topic together with other organizations, this study was not conducted in the context of a formalized inter-organizational collaboration (alliance, network, etc.).

actors – i.e. boundary spanners (Williams, 2002) – or the use of key artefacts – i.e. boundary objects (Star & Griesemer, 1989).

I address these issues in the context of a healthcare network, by examining the strategy work involved in developing a regional cancer care network between four hospitals in the Netherlands (from here on referred to as GynOncNet). The network's main strategizing actors were the hospitals' care managers and gynaecologists (from here on referred to as GynOncNet strategists), the hospitals' Executive Boards, and an insurance company that operated in the region. Based predominantly on an extensive array of documents, spreadsheets, PowerPoint slide decks, and email conversations that were generated in the network's three-year development, I found that GynOncNet's strategizing process featured two main types of strategizing efforts. The first involved the GynOnNet strategists' inter-organizational efforts to articulate the network's policies and procedures. The second involved the inter- and intra-organizational efforts towards, on the one hand, securing funding for the network's operations from the insurance company; and on the other hand, obtaining the Boards' approval and some financial support (significantly less than was hoped for from the insurance company). Despite a seemingly unproblematic first two years of development, the GynOncNet actors' strategizing efforts ultimately failed. The insurance company chose not to fully finance the network's proposed policies – after an initial interest, and several delayed decisions – and the hospitals' Executive Boards continued to approve of the network, but declined to support it financially on their own. Examining the case from my chosen knowledge boundary framework yielded a number of findings that can provide insightful explanations for this failure.

First, I found that knowledge boundaries did, indeed, impact the ways in which the actors strategized. When interacting with each other, the GynOncNet strategists only needed to span syntactic boundaries. In this process, they could rely extensively on remote strategizing through textual artefacts. When interacting with the insurance company and Executive Boards, the GynOncNet strategists needed to also span semantic and pragmatic boundaries. In this latter process, I found that strategizing through textual artefacts was not sufficient, and the GynOncNet strategists still needed to rely on inter-personal strategizing. Referring back to the final outcome of GynOncNet's strategizing efforts, the network's seemingly straightforward early stages were explained by the GynOncNet strategists' successful spanning of syntactic boundaries. In turn,

its protracted strategizing failure predominantly resulted from their struggle to recognize and span the semantic and pragmatic boundaries between themselves and the insurance company and Executive Boards.

My second key finding concerned the reasons behind this struggle, which were embedded in the skewed nature of GynOncNet's interactions with the Boards and the insurance company. I noted that the GynOncNet strategists found themselves in a situation similar to issue selling (Dutton & Ashford, 1993; Dutton, Ashford, O'Neill, & Lawrence, 2001; Howard-Grenville, 2007): making a proposal and trying to influence the decision of other, more powerful parties, who were less invested in the proposal's outcomes – namely, the Executive Boards and insurance company. Although the notion of issue selling was not part of my initial conceptual framework – resulting unexpectedly from the analysis – it was especially useful for explaining some of the aforementioned strategizing interactions. Therefore, I retained it when presenting my study's findings and reflected on it in the chapter's discussion section. I found that the power and interest differences inherent in issue selling contexts (Dutton & Ashford, 1993; Dutton et al., 2001; Howard-Grenville, 2007) – and also present in my case – led the GynOncNet strategists to initiate and carry out most of the work needed to span the semantic boundary between them and the insurance company. As a result, the boundary object they designed for this purpose was ineffective, and the boundary was not spanned on a number of occasions. This power and interest imbalance also ensured that GynOncNet's interactions with the insurance company focused on translating the implications of their proposed policies. The parties did not engage in a joint negotiation towards a (new) common interest, and thus also failed to span the pragmatic boundary between them (Carlile, 2002, 2004).

When examining the GynOncNet's strategists' interaction with the Executive Boards, I found that the boundary spanning challenges generated by the issue selling context were compounded by latent semantic and pragmatic issues between these parties. As previously mentioned, the GynOncNet strategists had two goals regarding the Boards: obtaining their approval and some financial contribution. Since the insurance company was expected to provide the larger share of financial support, the Executive Boards were seen as relatively minor contributors and players. As a result, the GynOncNet strategists did not clearly discuss the network's overall financial needs with the Boards until quite late in the strategizing process. Because of this, the semantic and

pragmatic boundaries between the Boards and the GynOncNet strategists were never properly spanned, as their true nature only surfaced when it seemed likely that the insurance company would not fully support the network. Thus, although the GynOncNet actors' strategizing efforts towards the Executive Boards also involved boundary spanning difficulties, their strategizing failure ultimately stemmed from the fact that the relevant semantic and pragmatic boundaries between the parties had not been recognized in the first place.

Overall, my exploration of this network's inter-organizational strategizing across knowledge boundaries yielded insights on the contexts most effective for different strategizing modes, and the implications of spanning boundaries in issue selling contexts – particularly with regard to boundary objects. This study's contribution to theory is therefore two-fold. In the case of strategy-as-practice, I answer the recent calls for further research into the "stuff" of strategy (Jarzabkowski et al., 2013; Vaara & Whittington, 2012) by highlighting an as yet understudied mode of strategizing: one that relies significantly on strategizing remotely through textual artefacts. Moreover, I add to the growing body of empirical strategy-as-practice studies in inter-organizational settings (e.g. Deken et al. (2016)), as well as ones focused on non-typical strategizing actors (i.e. actors other than managers or consultants) (e.g. Jarzabkowski, Burke, and Spee (2015)).

I contribute to the boundary spanning literature by theorizing the antecedents of effective boundary objects in an issue selling context, where boundary objects tend to be designed unilaterally by the issue selling party, rather than through the joint effort of both parties. Taking this insight further, I open a new avenue for research by reframing issue selling as a particular, as yet understudied, form of boundary spanning. Moreover, recent boundary spanning insights have indicated that pragmatic issues are approached through transformative boundary spanning (Levina & Vaast, 2013), where the collaborating parties come together to create new, common interests and knowledge (Carlile, 2002, 2004). With this study, I show that issue selling engenders a boundary spanning context where pragmatic issues are, instead, largely dealt with through transactive boundary spanning (i.e. transferring and translating knowledge) (Levina & Vaast, 2013).

On the whole, my findings also contribute to the inter-organizational collaboration literature, by shedding light on how key actors actually articulate and issue sell their joint strategy in practice, particularly in a bottom-up rather

than top-down initiated collaboration (Rosenkopf, Metiu, & George, 2001). In so doing, I help further open the black box of inter-organizational collaborations.

The remainder of this chapter is structured as follows. First, I elaborate on my conceptual framework and its interrelation with the strategy-as-practice stream of literature. Second, I introduce my empirical case and address my data collection and analysis methods. I then present and discuss my findings, and conclude with the study's limitations and suggestions for future research.

Conceptual framework

Syntactic, semantic, and pragmatic boundaries

The knowledge boundaries this study focuses on when exploring the process of strategizing in the context of inter-organizational collaboration have previously been extensively addressed by Carlile (2002, 2004). He developed his knowledge boundary framework by reviewing three different approaches to knowledge and boundaries, and aligning the identified boundary types in order of complexity. Thus, the first and least complex type of knowledge boundary – one labelled as syntactic – reflects the information processing perspective of dealing with boundaries. In keeping with the advocates of this approach (Ashby (1956); Brown and Eisenhardt (1995); Buckley (1968); Shannon and Weaver (1949); as cited in Carlile (2002)), a syntactic boundary between communities or groups indicates that the information transfer between them is insufficient or problematic. To span a syntactic boundary, the collaborating communities or groups would have to develop a shared and stable syntax, which would in turn enable accurate communication between them.

However, despite a common language or syntax, different communities may still interpret the information differently. Moreover, the collaborative task at hand may require not only a sufficient amount of information, but also an understanding of what this task may mean for each community. The semantic approach to knowledge and boundaries (Dougherty (1992); Nonaka (1994); Nonaka and Takeuchi (1995); as cited in Carlile (2002)) acknowledges these very issues. In order to cross this second, more complex, semantic boundary, the collaborating communities would need to pay attention to and eventually translate the tacit aspects of knowledge that are relevant to their collaboration. More specifically, they would have to make explicit the differences between their knowledge and expertise, as well as their dependencies in the course of

the collaboration – that is, what each community needs from the other, and how their work intertwines.

Once these difference and dependencies are clarified for each community, so too are the consequences they generate. In some cases, collaborating across a boundary may generate costs and associated conflicts of interests between the communities involved. In the process of making each community's dependencies explicit, these conflicts of interest are also made explicit. To account for this, Carlile (2002, 2004) introduces a third and most complex type of boundary – the pragmatic one. In keeping with the pragmatic approach it was named for, this particular boundary stems from the fact that working across a boundary in a transformative context – that is, where new practices are generated – comes with potential costs and conflicts. For the collaborating community members, the knowledge they use is "at stake" (Bourdieu and Wacquant (1992), as cited in Carlile (2002)). This means that altering it – to make room for newly generated knowledge, and/or to meet the newly explicit dependencies – can have negative consequences. Thus, crossing pragmatic boundaries implies negotiation between the communities involved, with the purpose of creating a common interest. In this respect, the political power of each community can impact the effectiveness of the overall collaborative outcome. As Carlile (2004) has shown, the "weaker" communities are less able to influence or transform the knowledge of the "stronger" ones. The results of this imbalance are generally more visible at a pragmatic boundary, seeing as spanning it involves negotiations between the parties. However, different degrees of political power can hinder communities from even representing their differences and dependencies, thus also impacting the spanning of semantic boundaries.

Boundary spanning in an inter-organizational strategizing setting

Carlile (2002, 2004) has explored his boundary framework empirically in the context of product development. In my study, I apply it in the context of a network's strategy articulation and issue selling. Here, the collaborative outcome is not a tangible product, but the partner organizations' inter-organizational agreements regarding their joint strategy. Thus, spanning syntactic boundaries in my study would mean ensuring an adequate information transfer in order to articulate the network's strategy and secure approval and financial support for said strategy. Spanning semantic boundaries would involve clarifying each party's requirements for articulating and approving this strategy. And finally,

spanning pragmatic boundaries would require that the collaborative parties whose interests are in conflict – either regarding the articulated strategy, or its financial support – find an amiable solution (i.e. adapting the strategy or the means of financial support). Failing to span one or more of these knowledge boundaries would, thus, impact the outcome of the strategizing effort in a number of ways. The partners' joint strategy may be poorly substantiated, may insufficiently reflect all the partners' true collaboration concerns, or may leave one or more partners dissatisfied with the final agreements. At the same time, the partners' strategy – once articulated – may be poorly communicated, translated, or advocated towards the parties who must decide whether to approve or fund the implementation of this strategy. Any and all of these failings may lead to the failure of the strategizing process, triggering either a new round of strategizing, or the end of the collaborative agreement altogether.

As to the ways in which these knowledge boundaries are actually spanned, this can be done through the work of key actors (boundary spanners), and/or through the use of key tools (boundary objects). The former are actors who synthesize, translate, and share information between different group (Levina & Kane, 2009), which they link through their activities (Cross & Parker, 2004). The latter are flexible epistemic objects with a common identity across different groups, which are used by actors in those groups in meaningful and useful ways (Star & Griesemer, 1989). As Chapter 2 has already addressed boundary spanners in more detail, I will only elaborate below on boundary objects.

Perhaps because the most influential work on boundary objects was a study of cross-disciplinary collaboration (Star & Griesemer, 1989), research on these boundary spanning mechanisms has mainly developed in the context of collaboration across communities of practice, which boundary objects work to bridge (Nicolini, Mengis, & Swan, 2012). Generally speaking, boundary objects have been shown to be more suited for crossing syntactic or pragmatic boundaries (Carlile, 2004). Nevertheless, they can be used to span all three types of boundaries (Carlile, 2002). Past research has also suggested that specific types of objects may be better suited to some types of boundaries rather than others (Carlile, 2002; Star & Griesemer, 1989): repositories for syntactic boundaries, standardized forms and methods for semantic boundaries, and objects, models, or maps for pragmatic boundaries. In addition, although a particular boundary object may be useful when spanning, for instance, a syntactic boundary, it may be insufficient when dealing with semantic or pragmatic boundaries. In the same

way, an artefact that successfully spans a particular type of knowledge boundary in one context (between certain parties or communities) might not function in the same way in a different context.

Moreover, since different users can use artefacts in different ways, and imbue them with different meanings, not all artefacts function as boundary objects, even if they may have been intended for that purpose in practice. Thus, there can be a distinction between designated boundary objects and boundary objects-in-use (Levina & Vaast, 2005). The former are artefacts which, because of their characteristics, are designated as valuable for boundary spanning – typically by powerful actors, such as top managers (Levina & Vaast, 2005). The latter are artefacts that truly serve as boundary objects – that is, being found meaningful and useful by different groups of people, and having a common identity across these groups (Star & Griesemer, 1989). For instance, in her study of work processes in a manufacturing plant, Bechky (2003a) found that, although a machine's blueprints had been designated as boundary objects, the boundary objects-in-use were the machine's prototypes. This was because the technicians and assemblers who needed to span boundaries in their work found the prototypes more meaningful – and thus, more useful – than the machine's blueprints.

In the strategy-as-practice literature, the relatively few studies that have used a boundary object framework have done so to examine strategy tools such as the BCG matrix or SWOT analyses (Belmondo & Sargis-Roussel, 2015; Eccher et al., 2006; Jarzabkowski & Kaplan, 2015), or strategy technologies such as PowerPoint (Kaplan, 2011). All of these studies have focused on how boundary objects enable and constrain strategizing interactions across hierarchical or professional boundaries. In so doing, they have continued the "classic" approach to boundary objects, framing the studied objects as beneficial to the strategizing process in a general way (Carlile, 2004). Thus, although they framed strategizing as cross-community work, they stopped short of reflecting on how the various boundaries between the parties involved impacted their strategizing. With regard to boundary spanners, strategy-as-practice studies have, to the best of my knowledge, not yet explicitly used a boundary spanner framework[10]. A wide variety of strategy-as-practice studies have examined the work of actors generally acknowledged to function as boundary spanners, such as middle

10 I would argue this based on the fact that searches conducted at the time of writing in the Web of Knowledge database (searching for "boundary spanners" and "strategy as practice" in the title, abstracts, or keywords of the articles) and Google Scholar (using the same keywords for a general search) returned no such study.

managers (Balogun & Johnson, 2004, 2005; Rouleau, 2005; Rouleau & Balogun, 2011). However, by not placing explicit emphasis on boundary spanners, these studies naturally focused on the studied actors' practices in general, and not on how boundary spanning in particular can impact the strategizing process. On this backdrop, my exploration of how actors strategize across different knowledge boundaries – as well as their particular uses of boundary spanners and boundary objects in the process – contributes to the literature on strategy work.

Methods

Research design

I examined an emergent, bottom-up initiative of Dutch gynaecologists and care managers[11] to centralize gynaecological cancer care in one of the Netherlands' administrative regions by setting up a network. The network (GynOncNet) consisted of one academic hospital and three general hospitals, all of which had the facilities and medical expertise required to diagnose, perform surgeries on, and care for patients with gynaecological cancer. A final actor relevant to GynOncNet's strategizing activities was an insurance company operating in the region, whose decision on whether or not to support the network financially was critical for GynOncNet's operations.

I used a retrospective, exploratory, single case study design (Yin, 2009), with strategizing activities as the unit of analysis. In keeping with the strategy-as-practice perspective, I viewed strategizing activities as those consequential for the direction and survival of the inter-organizational collaboration, even when they were not formally seen as such (extrapolating from Jarzabkowski et al.'s (2007, p. 8) definition of (intra-organizational) strategy). Thus, this would include inter- and intra-organizational activities that can go beyond strategy formulation, and which can be enacted by non-typical strategists (i.e. actors other than managers or consultants). GynOncNet was especially suitable for this perspective, as it featured a wide array of strategizing actors (mid-level and operational, managers and professionals), and various strategizing activities that were both internally and externally oriented. An added reason for selecting this case was the key role of artefacts and boundary objects in the network's

11 In the Netherlands, the departments providing healthcare services feature two managerial functions: a care manager, whose function is to coordinate the medical and care related operations in the department; and a division manager, who is responsible for typical managerial tasks.

strategizing. The strategy-as-practice field has recently turned its attention to the role of objects and artefacts with which actors carry out strategy work (Jarzabkowski et al., 2013; Vaara & Whittington, 2012). In line with this agenda – and, as I will show below, my collected data – this study will place particular focus on the use of text in the actors' strategizing interactions. In so doing, the present study also follows in the tradition of numerous studies on distributed collaboration that use a retrospective examination of written materials (see for instance Faraj and Xiao (2006); Fayard and Metiu (2014); Orlikowski (2002)).

Research setting

The network developed in the context of national level policies that aimed to centralize gynaecological cancer care, and a number of briefs issued by the Dutch Society of Obstetrics and Gynaecology on the desired practices and quality levels across the country. In response to these policy developments, the hospitals in the region signed an agreement in 2007 through which they pledged to improve their collaboration, and thereby develop a more structured approach to the regional gynaecological cancer care. However, this agreement was quite general, consisting only of a one-page document stating the hospitals' intent, without explicit mention of policies, procedures, or financial implications. In 2008, this unstructured collaboration took the form of multidisciplinary meetings between gynaecological specialists, with the aim to discuss patient cases. In the following year, videoconferencing was introduced to facilitate these multidisciplinary meetings. Moreover, consultants were appointed from among the gynaecologist oncologists in the academic hospital, who from that moment on would assist the gynaecologists with an oncology focus in patient surgeries on an ad-hoc basis (being reimbursed for their services by the hospital they were assisting). The practice of joint surgeries had been introduced in order to increase the success rate of tumour removals, as the gynaecologist oncologists were expressly specialized in the area of gynaecological oncology. Their colleagues – the gynaecologists with an oncology focus – had experience in the area, but had not formally specialized in it, and were therefore being considered by some to be 'semi-trained' (e.g. "Is top-level care for ovarian cancer patients more cost-effective than regular care?" 2000). That being said, while the consultants were being reimbursed for the joint surgeries they conducted, this was done in a financially unsatisfying manner. The consultants received half the fee of the colleagues whose surgeries they were joining, which meant that both consulting

and consultant hospitals were incurring losses, as their specialists' services were not compensated by the right amount.

On this backdrop, GynOncNet was kick-started in 2010 in order to formalize these joint surgeries, and further expand the hospitals' collaboration in a way that would imply the entire care path (rather than only the surgical aspects), and improve the quality of care and the region's coordination. A key aspect of the network was the fact that it proposed an alternative model to the government's suggested (by not imposed) "strong" centralization approach. According to this approach, all the gynaecological cancer surgeries – and a great deal of the diagnosis and care – would take place in the academic hospital. GynOncNet's alternative model aimed to keep the general hospitals involved for two types of gynaecological cancer cases (which had higher incidence), and centralize only the high complexity cases (which had lower incidence) in the academic hospital. Moreover, once the joint surgeries took place on a regular, formalized basis, GynOncNet intended to expand the scope of the collaboration to also include joint diagnosis and care for the two types of gynaecological cancer handled by the general hospitals. The latter, especially, would intensify the involvement of the consulting gynaecologist oncologists, as they would also need to carry out (and be reimbursed for) joint clinic hours.

Apart from the general desire to improve the quality of care and maintain the collaboration in the region, the four hospitals also preferred their alternative joint surgery model for their own interests. On the one hand, the general hospitals wanted to maintain their gynaecological cancer patient inflows, which would otherwise be transferred to the academic hospital. Were this to happen, the general hospitals would lose the expertise they had developed in the area, for whose development they had invested professionally and financially. The academic hospital also preferred the alternative model, as it would not be able to sustain the region's full patient inflow for practical reasons (e.g. the availability of operating theatres). Implementing the "strong" centralization model would thus generate longer waiting periods for the patients, and negatively impact their outcomes. This could also mean that the gynaecological cancer care in the region would be partially or fully moved to another Dutch administrative region, which also meant a loss of expertise and investment for the hospital (not to mention further complications for the patients living in this region).

In this context, GynOncNet's strategizing efforts were focused on two issues. First, articulating a series of network policies and procedures that

would allow the hospitals to better organize and improve the quality of the gynaecological cancer care in the region. Second, securing the financial support that would allow the network to function in the long term without incurring losses. As I will show below, this involved spanning a variety of knowledge boundaries, through the development and use of textual boundary objects, and also through the work of boundary spanners.

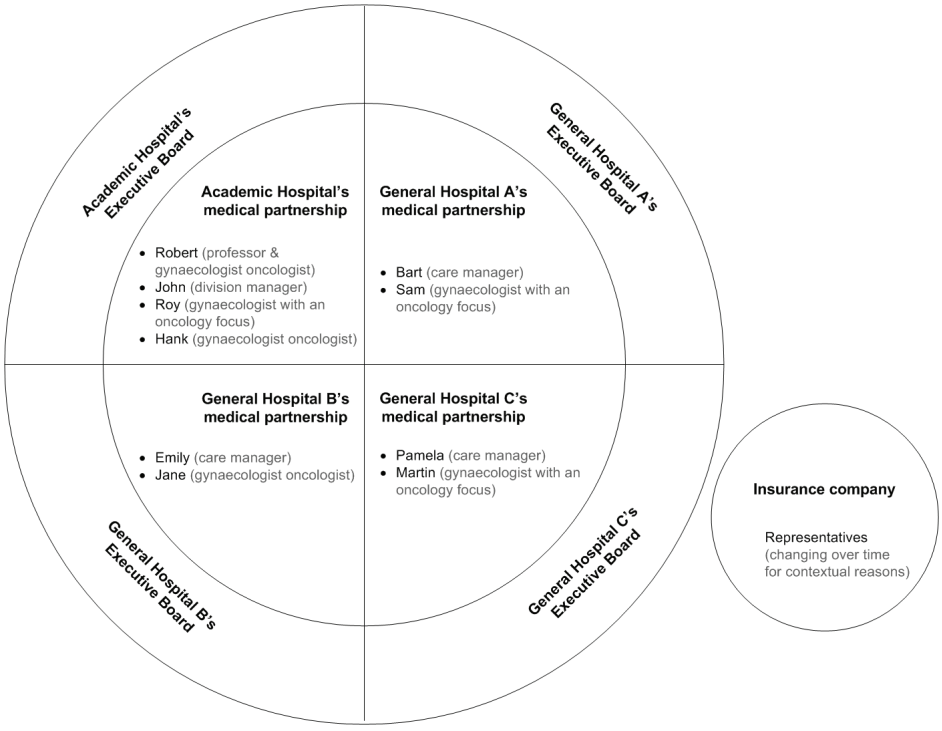


Figure 3.1. Overview of the strategizing actors involved in GynOncNet's development[12]

Data collection

The data I collected mainly consisted of 318 textual artefacts generated by its strategizing actors in the 2007-2013 period: 66 email threads, 121 documents, 76 spreadsheets, and 47 packets of presentation slides. Several of these textual artefacts were subsequent versions of an original artefact; 64 of them featured comments and/or tracked changes. From this pool of data, the email threads, meeting minutes, meeting agendas, official letters, and certain comments left on

12 All the names used in this study are fictitious, to maintain anonymity.

the document drafts were especially relevant for reconstructing the strategizing activities of the case's key actors. I also observed two GynOncNet progress meetings and conducted semi-structured interviews with two of the strategizing team's members (the team leader, and a gynaecologist with an oncology focus from a general hospital). This information was supplemented by 7 national level guidelines and briefs, as well as contextual knowledge of the main processes and challenges associated with setting up a network such as GynOncNet (drawn from exploratory interviews with 3 key strategizing actors from a similar cancer care network developed in a different Dutch region). These artefacts and meetings involved a range of individuals, with different skill sets, hospital affiliations, and roles in the network (see Figure 3.1 for an overview of the relevant actors).

Data analysis

My analysis relied heavily on the content of the collected textual artefacts, particularly the ones that were explicitly used to guide or record the enactment of the strategizing process. The insights drawn from the artefacts were corroborated with information from interviews and observations. Throughout the data analysis process, I consulted with my supervisors, sharing information on relevant network developments and insights regarding the actors' use of artefacts in their strategizing. My supervisors took up the roles of devil's advocates (Nemeth et al., 2001), asking critical questions regarding early attempts at theorizing, suggesting alternative interpretations, and helping to shape and sharpen later insights.

Phase 1: Understanding the case developments

The analysis began in an open-ended fashion, informed by a broad interest in the use of textual artefacts in inter-organizational strategizing and an early immersion in the boundary object literature. The first step was to garner a basic understanding of GynOncNet's structure, its main strategizing actors, and its broad developmental phases. This was done by consulting the exploratory interviews had with two of the network's strategizing actors, the network's finalized business plan, as well as the observation notes made during two of the network's progress report meetings. After these preliminary steps, I focused on getting a better understanding of the network's development. I ordered the artefacts by date, then coded them in ATLAS.ti according to their type (email, document, spreadsheet, PowerPoint slide deck), the actors that created and

commented on them, the organizations they referred to, and their purpose. At the same time, I developed a detailed timeline of GynOncNet's development, to keep track of the various meetings and decisions having to do with the network, as well as the moments when the artefacts were created.

Phase 2: Focus on strategizing activities

In the process, I noted that GynOncNet's strategizing efforts could be grouped according to their particular focus. Some were GynOncNet oriented, in that the GynOncNet actors were focused on elaborating the network's policies and procedures. Others were insurance company oriented, in that the GynOncNet actors were interacting with the insurance company representatives to try and secure funding for the network. Still others were oriented towards the partner hospitals' Executive Boards, as the GynOncNet actors tried to secure their respective Boards' approval and (to a much lesser extent compared to the insurance company) funding for the network. This, in turn, highlighted two main types of strategizing activities.

The first was strategy articulation, which the GynOncNet actors engaged in when elaborating and finalizing the network's policies and procedures. The second was strategic issue selling, which they engaged in whenever they tried to garner support for the network (financial or otherwise) from their Executive Boards and the insurance company. More generally, issue selling refers to activities through which some actors try to direct the attention and understanding of other, usually more powerful, actors with regard certain (strategic) issues (Dutton & Ashford, 1993; Dutton et al., 2001). Studies on the topic have typically focused on middle managers' efforts to convince top management of their initiatives' value, thereby influencing the latter's decision making; however, it has also been used in other contexts that feature a power imbalance between parties (for instance, subsidiaries and headquarters (Dorrenbacher & Gammelgaard, 2016)). Although it was not the key focus of this study – and thus, not part of my initial conceptual framework – this concept was especially useful for my analysis of the network actors' strategizing across boundaries, as I will show in the following sections.

In particular, I noted that, while the issue selling efforts directed towards the insurance company were consistently acknowledged as such, this was not the case for the issue selling efforts towards the Execute Boards. Thus, the GynOncNet actors were aware that they were trying to sell a proposal to

the insurance company, and were explicitly framing their proposal in a way that made sense to and appealed to the insurance company. In contrast, the GynOncNet actors appeared to predominantly strategize independently of their Executive Boards (beyond securing a blanket approval of the network in its beginning phases). The Executive Boards were only recognized as relevant sources of long term financing (which would thereby require that issue selling efforts be purposely directed towards them) at the very end of the network's strategizing process.

I then noted that these strategizing activities were enacted both remotely (via email or official letters) and during face-to-face meetings (regular progress meetings, or meetings with the insurance company representatives), with a significant reliance on remote activities. Moreover, examining the agendas, minutes, and emails that referred to the meetings (see Appendices 1 and 2) revealed that a large part of them – especially in the first year of the network's developments – focused on discussing or checking on the development of textual artefacts, which were being remotely drafted or edited in preparation for the meetings. Looked at from this perspective, the network's strategizing process seemed particularly straightforward. And yet, the insurance company eventually chose not to fully fund the network, and the Executive Boards declined to support it on their own – despite the fact that both parties had initially been enthusiastic about the strategists' proposal.

Phase 3: Focus on boundaries and boundary spanning mechanisms

At this point in the analysis process, it seemed likely that both the straightforward interactions between GynOncNet's strategizing actors and the eventual failure of their strategizing process could be explained by examining what boundaries featured in the actors' interactions, and how the actors navigated them. When interacting with each other and with the insurance company, the GynOncNet strategists were crossing inter-organizational boundaries. The latter interaction also featured professional boundaries, seeing as the insurance company representatives had different backgrounds than the GynOncNet strategists. Finally, the GynOncNet strategists' interactions with the Executive Boards featured both hierarchical and professional boundaries (the latter because the Executive Board members were not themselves active in the gynaecological cancer care domain). In order to account for the combined impact of these different boundaries on GynOncNet's strategizing process, I went back to

the literature and consulted Carlile's (2002, 2004) writings on knowledge boundaries and their spanning mechanisms.

With these concepts in mind, I first re-examined the "general" boundaries (organizational and professional) navigated by the GynOncNet strategists in each of the three strategizing interactions, and looked for relevant knowledge boundaries. I identified the presence of syntactic boundaries any time information helpful to the strategizing process needed to be transferred across a "general" boundary. I identified the presence of semantic boundaries any time the network's goals or the implications of its functioning needed to be made explicit between two or more parties. Finally, I identified pragmatic boundaries by the presence of conflicts of interest between two or more parties. I then examined what boundary spanning mechanisms were being used to navigate these knowledge boundaries, and whether or not they were effective. Boundary spanners were relatively easy to identify, since the key actors listed in Figure 3.1 all functioned as boundary spanners in one way or another (being key contact persons when crossing organizational or professional boundaries). Boundary objects were identified from among the data sample's artefacts. I identified an artefact as a boundary object if it was regularly referred to throughout GynOncNet's strategizing (robustness), it made reference to specific information (concrete), and if it could be adjusted as needed over time (flexible) (Carlile, 2002; Levina & Vaast, 2005; Star & Griesemer, 1989). Some artefacts were most visibly used as boundary objects in GynOncNet's strategizing: two spreadsheets used to transfer information between the partner hospitals when articulating GynOncNet's policies and procedures; various versions of the business plan developed by GynOncNet's strategists to facilitate discussions between them and the insurance company and Executive Boards[13]; and the memos sent by the strategists to their Executive Boards.

Phase 4: Patterns of knowledge boundaries and boundary spanning across the different strategizing activities

Having identified the knowledge boundaries and boundary spanning mechanisms used in each type of strategizing interaction (see Table 3.1 for an overview), I took a step back and looked for patterns. I noted that GynOncNet's

13 Although this is not the focus of my study, it should be noted that the GynOncNet business plan was an epistemic object (Knorr Cetina, 1999), as it developed in a nested fashion by building on a number of previously developed artefacts (documents, presentation slide-decks, etc.). Notable among these artefacts – which I refer to here and below as "versions" of the business plan – are a slide deck developed for a first presentation of the network to the insurance company, and a patient distribution proposal.

strategy articulation efforts – which dealt mainly with syntactic boundaries – were predominantly carried out via remote strategizing. These efforts seemed to develop successfully, and the boundary objects they made use of were effective. In contrast, GynOncNet's issue selling efforts towards the insurance company – which featured semantic and pragmatic boundaries – were carried out both via remote and inter-personal strategizing. Here, the boundary objects used to strategize across boundaries were often ineffective, and the issue selling efforts themselves were ultimately unsuccessful. In the case of the issue selling efforts towards the Executive Boards, these interactions – which also featured semantic and pragmatic boundaries – were predominantly carried out via remote strategizing. Here, the boundary objects used to strategize across boundaries were both effective and ineffective. Notable in the case of these interactions was that the unsuccessful outcomes were ultimately due to the GynOncNet strategists' assumptions regarding the Boards' role in the strategizing process, which made the strategists recognize the relevant knowledge boundaries too late in the process. In the following sections, I address the root causes and consequences of these findings in more detail, and reflect on their implications for theory and practice.

Table 3.1. Overview of analytical themes

Focus of strategizing interactions	Strategizing activity	Boundaries		Spanning mechanisms	Remote / inter-personal strategizing
		"General" boundaries	Knowledge boundaries		
GynOncNet oriented	Strategy articulation	Inter-org	Syntactic	Spreadsheets	Remote
Insurance company oriented	(acknowledged) Issue selling	Inter-org Professional	Pragmatic Semantic	Business plan versions, Boundary spanners	Remote & Inter-personal
Executive Boards oriented	(unacknowledged) Issue selling	Hierarchical Professional	Pragmatic Semantic	Business plan, Memos, Boundary spanner	Remote & Inter-personal

Findings

In this section, I first produce an overall narrative of GynOncNet's strategizing process between 2010 and 2012, then identify the knowledge boundaries and boundary spanning mechanisms that were relevant to its three main strategizing interactions: between the GynOncNet actors, between them and the insurance company representatives, and between them and their hospitals' Executive Boards.

Narrative of GynOncNet's strategizing process

Period 1 (2010): Network kick-off, articulating network policies, and the first issue selling efforts

The network's strategizing was kicked off by Robert, a professor of gynaecological oncology at the academic hospital, who would also eventually become the strategizing team's leader. At the end of January 2010 (see Figure 3.2 for a timeline of these developments), he organized a meeting between the three general hospitals' care managers and representative gynaecologists, and the academic hospital's gynaecology division manager. This being only an introductory meeting, no strategizing was done on the content of GynOncNet's vision and policies; instead, decisions were made on the strategizing process. The team agreed that the first development stage would take place throughout 2010, and that the team members would focus on developing the network's business plan. They also agreed that the first step would be to generate support for the network within their respective hospitals, and determine their own interests regarding the network *(artefact #11; slide deck; 26-01-2010)*. They decided to do so by appointing an external advisor to consult their Executive Boards and medical partnerships[14] about the network *(artefact #28; email thread; 15-03-2010)*.

As a next step, Robert began drafting a project contract – a ten-page document which formulated the network's background, goals, pre-conditions, communication structures, member list, and project planning. At the end of April, he announced the official kick-off of GynOncNet's set-up to the gynaecology divisions of the general hospitals (division managers, care managers, and gynaecologists) via an official letter. He also informed them that the external

14 In the Netherlands, medical specialists can either be employed by a hospital, or, more often than not, work on an independent basis. The group of independent medical specialists in the hospital organize per medical specialty in what is known as a (medical) partnership.

advisor had been appointed, namely: an experienced and now retired gynaecologist *(artefact #37; official letter; 31-05-2010)*. This external advisor would go on to interview the general hospitals' Executive Boards and medical partnerships on three specific issues: if they agreed with the network being set up, what they expected from the network, and what resources they were willing to provide it with. More practically, the latter two issues referred to how much gynaecologist oncologist manpower each hospital could accommodate regarding the joint surgeries and (eventual) joint consultations, and whether the Boards and medical partnerships would be prepared to support the network financially. Robert finalized the project contract at the end of May, and sent it to the same group of hospital representatives in an official email. In this email, he asked them to discuss the document in their own organizations, and comment on it before the team's first official meeting – with would eventually take place at the end of June 2010 *(artefact #37; official letter; 31-05-2010)*.

From then on, the team members met almost monthly until the end of the year. Most of these meetings were between Robert and the care managers. Two topics came up during each of these meetings. The first topic concerned the information required to draft the network's business plan, and mainly had to do with the current patient distribution in the region (given by the number of gynaecological cancer cases in each hospital, per year, per type). The second topic had to do with the information required to draft the network's operational care paths. The meetings also addressed a number of ad-hoc issues, such as the external advisor's report on the partner hospitals' requirements and the resources they were willing to provide in support of the network. The advisor concluded his interviews at the end of June 2010, and delivered a report of each party's opinions, requirements, and resources (along with the minutes of each of his meetings) at the end of August 2010. The report showed that all the general hospitals' medical partnerships and Executive Boards agreed with setting up the network. They also emphasized the importance "good financial agreements" between the partners (*artefact #80, document; 27-08-2010*). The GynOncNet actors took this as a positive sign and continued their data collection efforts, aiming to develop clear and concrete arrangements – particularly with regard to the financial support that the network would require from the region's insurance company (*artefact #91; meeting minutes; 19-08-2010*).

Initially, the strategizing team had planned to clarify these issues by developing a business plan, and only then approach the insurance company.

However, soon after receiving the external advisor's report, they decided to have a preliminary meeting with the insurance company representatives instead, in order to "plant a seed" and see how their network proposal would come across (*artefact #91; meeting minutes; 19-08-2010*). Thus, Robert presented GynOncNet's aims and plans for the future during one of the academic hospital's regular meetings with the insurance company, at the end of September 2010. For this purpose, he drafted a PowerPoint slide deck which offered information on relevant national-level reports and guidelines that advocated for the regional centralization of gynaecologic oncology, the current patient referral practices in the region, and the strategizing team's goals (*artefact #15; slide deck; 21-09-2010*). This first presentation enthused the insurance company representatives, who said they would be "willing to contribute an amount." Nevertheless, they requested more concrete information regarding the network's costs and outputs, as well as the specific patient case distribution that the network would propose (*artefact #130; meeting minutes; 5-10-2010*).

From this moment on, the strategizing team began to include gynaecologists in the development of GynOncNet's strategy – albeit in separate meetings, with Robert as the common member. Two meetings were organized between him and gynaecologist representatives from each of the general hospitals, in October and December 2010. In the first meeting, they discussed and compared the strategizing team's understanding of each hospital's interests and available resources, based on the external advisor's report. They also discussed the gynaecologists' requirements from the network: what services and interactions they wanted the network to provide, and what they though the patients might require. Moreover, they had a first brainstorming session on the elements required for the common care paths that should be implemented between the hospitals once the network began operations in earnest. At the end, they agreed that a proposal would be developed regarding the concrete patient distribution among the four hospitals (*artefact #138; meeting minutes; 22-10-2010*).

Based on the finally collected information for the business plan, this patient distribution proposal was developed by the end of November (also incorporating the slide deck that had been prepared for the meeting with the insurance company, and the one prepared for the first meeting with the gynaecologists) (*artefact #21; slide deck; 3-12-2010*). The patient distribution proposal was then commented on by the gynaecologists in their second meeting, in December 2010 (*artefact #149; meeting minutes; 7-12-2010*). The proposal –

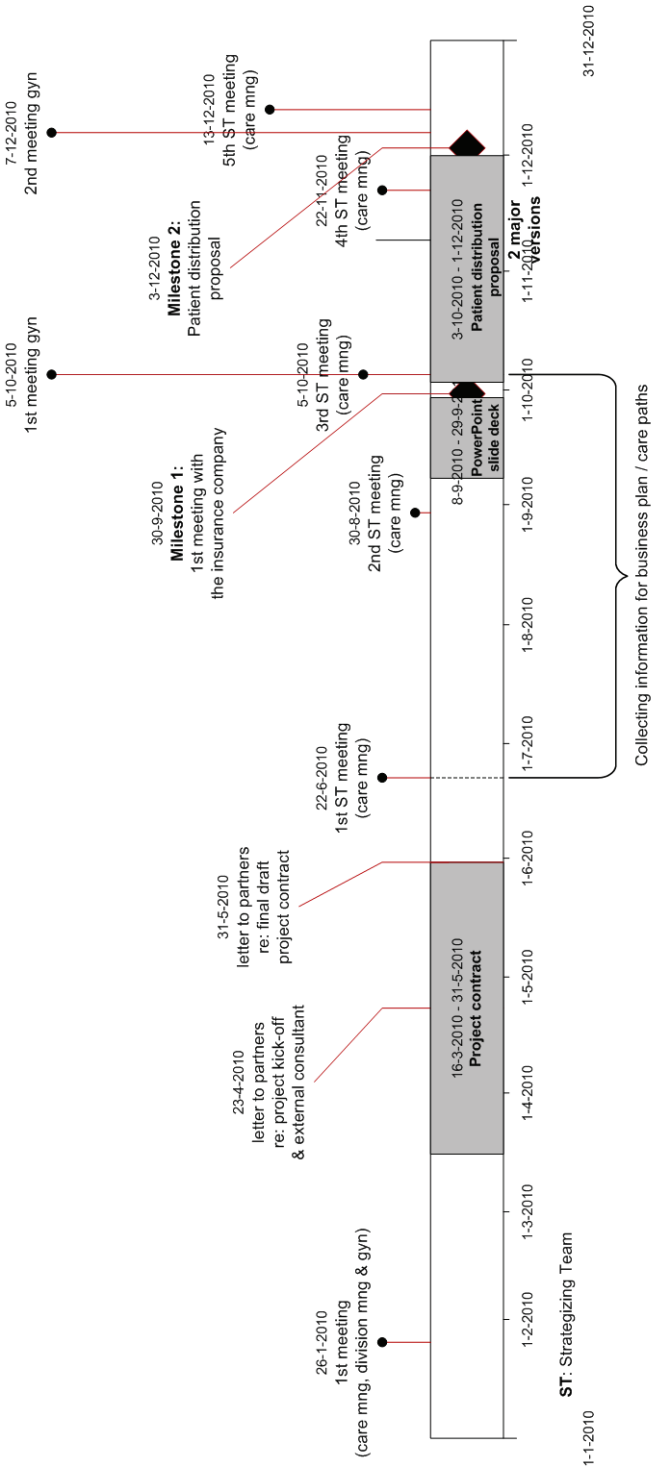


Figure 3.2. Timeline of GynOncNet developments in the year 2010

more particularly, the centralization it seemed to imply – initially generated some unrest among the medical partnerships (*artefact #148; official letter; Nov-2010*). However, it was eventually updated and approved within the strategizing team (which now consisted of both managers and gynaecologists). The team then decided to present the proposal for further comments within their own hospitals (*artefact #155; meeting minutes; 13-12-2010*).

Period 2 (2011): Business plan development, implementation efforts, and further issue selling

In 2011 (see Figure 3.3 for a timeline of this year's developments), the strategizing team had two main activities. On the one hand, they began to further develop the 2010 patient distribution proposal, by including financial information and other quantified insights. This information would help turn the proposal into a business plan, which they planned to present to the insurance company. On the other hand, they began to develop the network's care paths, and work out the implications of their implementation: organizing multidisciplinary (and multi-organizational) patient evaluations through videoconferencing, setting up the regional patient portal, and agreeing on regular visiting days when the academic hospital's gynaecologist oncologists would consult patients in the general hospitals' clinics.

In this second year of strategizing, the gynaecologists began to take a more central role. Between February and June 2011, Robert and the gynaecologists met monthly to discuss the abovementioned implementation issues and comment on the developing business plan. During these months, the business plan went through several drafts, each update bringing incremental additions or clarifications to its content. Only two updates had a major impact, and both were introduced after the gynaecologists' first meeting, in February 2011. The first involved equalizing the patient distribution between the three general hospitals for two tumour types (*artefact #167; meeting minutes; 16-02-2011*). The second involved framing the amount needed to implement GynOncNet's goals as an investment as opposed to a series of costs (*artefact #167; meeting minutes; 16-02-2011*). This new framing would be used throughout the business plan's development, the document's final iteration presenting the network as self-sustaining. In particular, the final version of the business plan forecasted that the funding provided by the insurance company and partner hospitals would be exactly equal to the amounts the network would save through higher efficiency and better quality of care (*artefact #237; slide deck; 28-11-2011*).

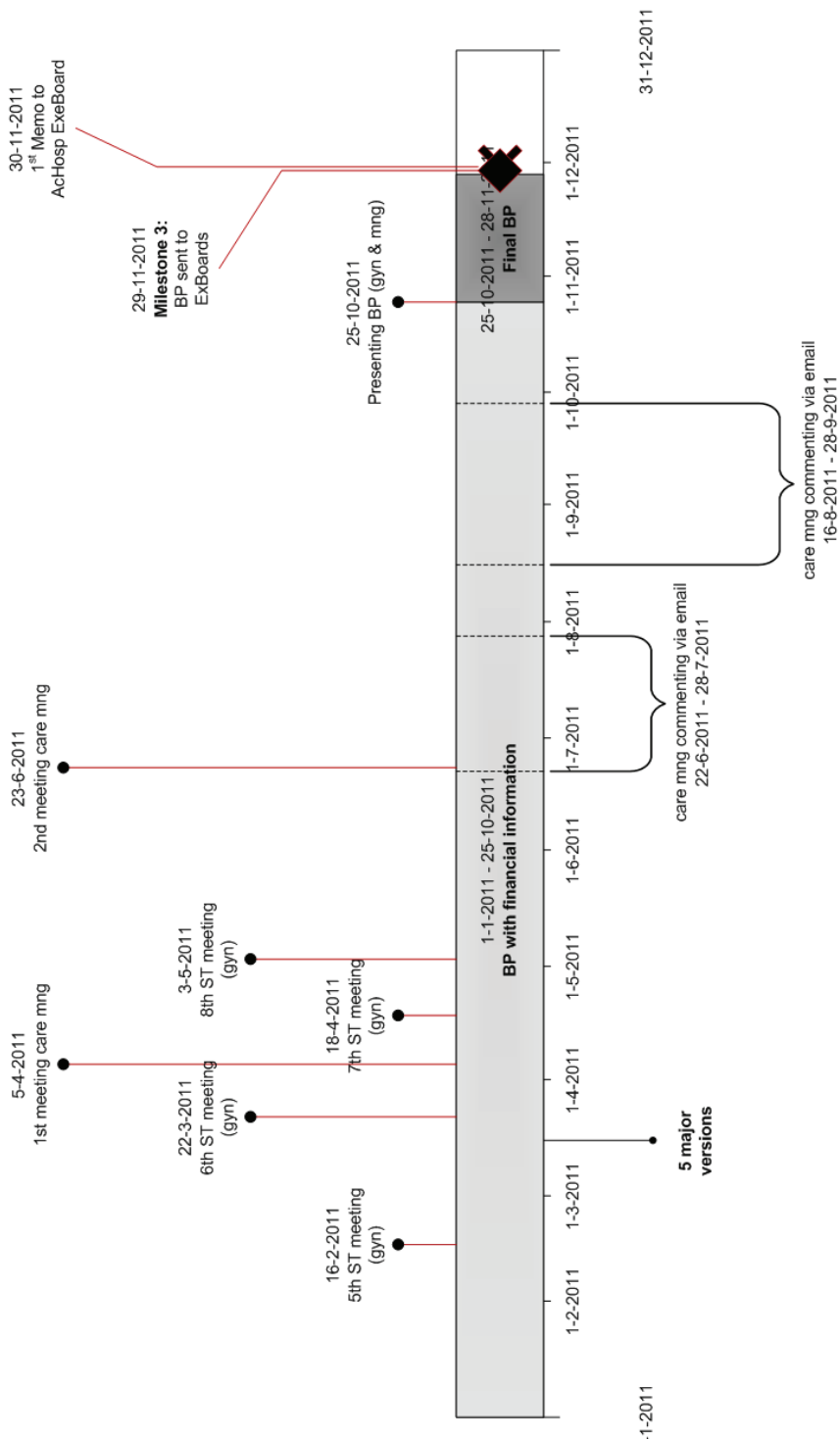


Figure 3.3. Timeline of GynOncNet developments in the year 2011

Throughout these developments, the care managers only came together twice, to discuss two major business plan drafts. Between June and September 2011, they commented on and provided input for various business plan updates over email. After a number of such updates, the full strategizing team (care managers and gynaecologists) came together at the end of October 2011 to discuss the finalized version of the business plan, its textual summary, and an introductory letter (*artefact #194; email thread; 23-10-2011*). After one more round of updates, these documents were disseminated to the four hospitals' respective Executive Boards at the end of November, along with a request for financial support (albeit significantly lower than the amount needed from the insurance company). The introductory letter, in particular, clearly and concisely outlined the network's qualitative benefits, the amount that would be requested from the insurance company in support of the network, and the financial contributions that the network required from each hospital – the latter of which being later agreed on by the four Executive Boards. The letter also asked the Boards to put GynOncNet and its financing needs on the agenda of their individual meetings with the insurance company representatives (*artefact #199; official letter; 21-11-2011*).

Around this same period, the general hospital representatives experienced a second moment of unrest, manifested as an official letter they sent to the academic hospital (*artefact #234; official letter; 11-11-2011*). In this letter, the general hospital representatives outlined their unease regarding two issues discussed in the full team meeting of October 2011. The first issue had to do with the delayed planning of a new meeting with the insurance company representatives. This delay was later revealed to be caused by the insurance company's recent merger, which had made it difficult to determine which insurance company representative should be contacted in order to continue the discussion on GynOcnNet's development. The second issue was the academic hospital's sudden announcement that it could no longer afford to conduct joint surgeries – which at the time were still occurring in an ad-hoc manner, and were not being fully reimbursed. Both issues would eventually be resolved. The new meeting with the insurance company representatives was planned for the start of January 2012, and the academic hospital found a temporary source of financing in its own Executive Board. Soon after submitting the finalized business plan to its Board, the gynaecology division's manager also sent the Board a memo requesting a "transitional budget" for 2012 (*artefact #290; memo; 30-11-2011*).

This budget would allow GynOncNet to implement its plans while they waited for the insurance company to decide if it would approve GynOncNet's funding proposal. This request was explicitly presented as a fix for a temporary situation. The memo framed the insurance company's agreement as a relatively likely result, even going so far as to suggest that, should the insurance company agree to fund the network retroactively, the Board's investment in the network could be returned.

Period 3 (2012): Issue selling efforts and final decisions

The GynOncNet strategists presented the finalized business plan to the new insurance company representatives (which had been replaced after the insurance company's merger) in January 2012 (see Figure 3.4 for a timeline of this year's developments). The insurance company made no decision regarding the network's financial support at the time. Although they found GynOncNet's proposed regional organization an "attractive alternative" to the strong centralization model, the insurance company representatives decided to wait for a decision from the National Association of Healthcare Insurance Companies (NAHIC)[15] regarding the reimbursement of joint surgeries (one of the two key operational practices proposed by the network) for ovarian cancer tumours (*artefact #255; email; 10-02-2012*). Despite the lack of resolution, the GynOncNet strategists were optimistic: the insurance company had seemed interested in the soft centralization model they were proposing, and the academic hospital's Executive Board had also approved the network's request for temporary funding. Robert communicated these new developments to the general hospitals through an official letter – distributed via email in February 2012 – and GynOncNet effectively began to implement its operational plans (*artefact #255; email; 10-02-2012*).

NAHIC's decision regarding the reimbursement of joint surgeries for ovarian cancer tumours came out in June 2012. It stated that the joint surgery costs should be settled between the collaborating hospitals – initially without suggesting a particular fee, and later explicitly indicating one (*artefact #261; official letter; 29-06-2012*). Based on the indicated fee, the GynOncNet care managers became aware – in July 2012 – that joint surgeries would not be enough to financially sustain the network (since the network also proposed joint surgeries for other tumour types, joint consultations, and tumour board

15 *Zorgverzekeraars Nederland* in Dutch.

discussions) (*artefact #263; slide deck; 9-07-2012*). In this new context, either the insurance company would fully finance the network, or all the gynaecological cancer cases would need to be centralized in the academic hospital, making it impossible to improve the quality of cancer care in the region.

GynOncNet next met with the insurance company delegation in August 2012. During this meeting, they once again discussed the network's proposal, and also addressed NAHIC's recent decision – which the insurance company representatives had not been aware of. Once again, no decision was made. However, the GynOncNet strategists did ask for and receive concrete indications as to what information the insurance company needed in order to make this decision (*artefact #256; email; 9-08-2012*). At this point in time, the insurance company asked for another presentation on GynOncNet's proposed model, which would address its potential qualitative benefits. This was because the medical advisor who had been the insurance company's main contact person with regard to GynOncNet issues had also been replaced in the meantime, and needed to be properly briefed (*artefact #281; memo; 23-10-2012*). The insurance company also asked that the GynOncNet strategists make explicit the exact financial agreements that the hospitals would be making with regard to joint surgeries, expressed in terms of insurance reimbursement models.

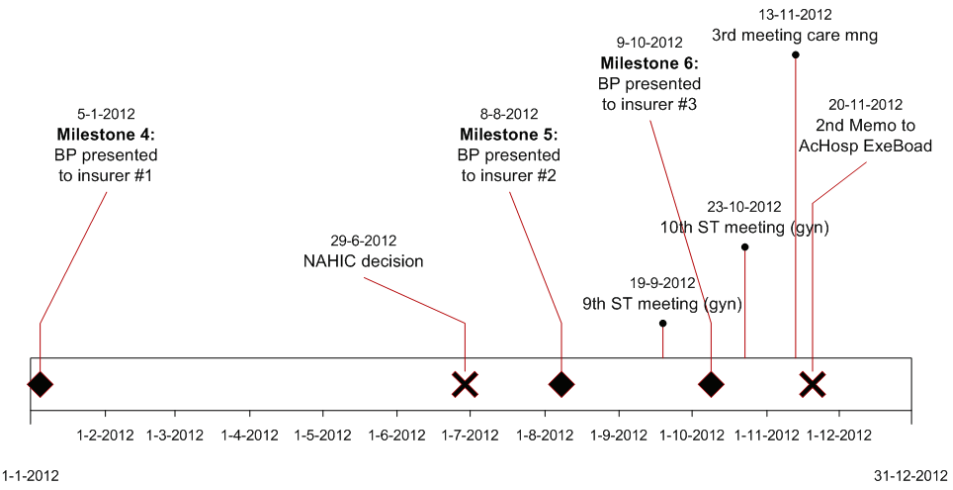


Figure 3.4. Timeline of GynOncNet developments in the year 2012

This third and final presentation of the year would take place in October 2012. In the meantime, the GynOncNet care managers began to synthesize information on the financial implications of GynOncNet's operations, as expressed in terms recognizable to the insurance company (*artefact #285; email; 13-11-2012*). Doing so further proved to the GynOncNet strategists that the network could not be sustained solely through the hospitals' financial contributions (*artefact #255; email; 10-02-2012*). If GynOncNet could not secure the additional funding it needed through one of three options – the insurance company's agreement, convincing the hospitals to increase their contributions, or convincing the academic hospital to extend its "transitional" financial support by a year – the network would have to (at least partially) cease operations. Should GynOncNet not secure sufficient funding, a great deal – if not all – of the region's gynaecological cancer care would have to be centralized in the academic hospital. This would be an unsatisfactory outcome for two reasons. First, because the academic hospital would likely not be able to accommodate the region's full patient inflow. Second, because forwarding all patient cases to the academic hospital would lead to a loss of medical expertise in the other general hospitals, "leading to a great deal of anger and disappointment in the region". The academic hospital's gynaecology division manager communicated these scenarios and consequences to its Executive Board on behalf of GynOncNet, through a last memo in October 2012 (*artefact #281; memo; 23-10-2012*). In this memo, he also asked for the opportunity to discuss these issues – and the future organization of gynaecological cancer care in the region – with the Executive Board. In the meantime, the care managers finalised their reframed financial proposal and forwarded it to the hospitals' purchasers of medical services, asking that it be discussed by the Executive Boards and insurance company in their individual meetings. However, by then, their hopes of a positive decision from the insurance company were low (*artefact #285; email; 13-11-2012*).

In the end, in April 2013, the GynOncNet strategizing actors received word that their last proposal had not been discussed in the meetings between the insurance company and each of the partner hospitals (*artefact #310; email; 24-04-2013*). This indicated that neither the insurance company nor the hospitals' Executive Boards supported the network's proposal. When the GynOncNet gynaecologists next came together, in June 2013, they knew that their strategizing efforts – although outlining a good centralization model which improved the quality of care in the region – had failed to secure the necessary

funding. The actors were left to find another way to organize gynaecological cancer care in the region, and their inter-organizational strategizing efforts – at least regarding the network's initial form – came to an unsuccessful end (*observation notes and artefact #305; meeting agenda; 6-06-2012*).

Knowledge boundaries and the spanning mechanisms in use

GynOncNet oriented strategizing: Articulating the GynOncNet strategy

In a general sense, the GynOncNet actors had to navigate inter-organizational boundaries (between the four hospitals) while articulating the network's strategy. These generated knowledge boundaries, as outlined below.

As the previous sub-section's narrative shows – and the tables in Appendices 1 and 2 substantiate – the GynOncNet strategists' interactions in 2010 and 2011 focused on transferring information across organizational boundaries, and commenting on the content and framing of textual artefacts that were drafted based on this information. Thus, the actors predominantly dealt with syntactic boundaries. Semantic boundaries were generally not an issue among the strategizing team members, as their common professional affiliation ensured that they ascribed the same meaning to their joint objective – setting up GynOncNet. At the same time, any potential differences and dependencies between the organizations they represented with regard to the network's set-up and policies had – to a large extent – already been clarified by their history of working together. Any semantic issues that remained unaddressed were effectively navigated by the external advisor's interviews. His report outlined the dependencies that would result from implementing the network from the medical partnerships' perspective, namely: how much gynaecologist oncologist manpower each hospital could accommodate with regard to the joint surgeries and (eventual) joint consultations.

Pragmatic boundaries also appeared to be absent between the GynOncNet strategists (with the exception of two latent issues, which I will address below). This was mainly because they all had two common interests in setting up the network. The first interest was the good of the patient. The higher quality surgeries and shorter waiting periods which could be achieved within the structures of the network consistently surfaced in the documents they produced, their discussions, and their descriptions of the network to others. The second interest concerned the distribution of patient cases between them. All the

hospitals were interested in a model that would allow the general hospitals to keep treating certain cancer patients (as opposed to all cases being centralized in the academic hospital), and the academic hospital to be involved in all patient cases (via joint surgeries and joint consultations) without overstraining its capacity. In addition, the external advisor's report that all the general hospitals' medical partnerships supported the network's set-up suggested that, at least in this incipient stage, pragmatic boundaries were also absent between the medical partnerships that the GynOncNet actors were representing.

Nevertheless, some latent conflicts of interests remained, surfacing on two occasions. The first was prompted by the patient distribution proposal developed at the end of 2010, which generated some unrest among the general hospitals' medical partnerships at the thought of the centralization it seemed to imply. The second latent conflict concerned the potential end of joint surgeries that was announced towards the end of 2011. Both situations were resolved straightforwardly: the general hospitals' medical partnerships were content with an updated patient distribution proposal (which would eventually feature equal patient distributions among the three general hospitals for two tumour types) and the academic hospital found a temporary source of financing in its Executive Board. As such, the amiable solutions they found (i.e. spanning the newly uncovered pragmatic boundaries between them) may not seem particularly noteworthy. What is, instead, notable, is the latent nature of these pragmatic issues – particularly those related to the patient distribution proposal – as I will address in the discussion section.

To summarize, the main knowledge boundaries between the partner hospitals when articulating the network's strategy were syntactic ones. Although the GynOncNet actors did meet in person, their main strategizing interactions took place via specific boundary objects – in particular, standardized spreadsheets developed by the GynOncNet actors to suit their information transfer needs. One such boundary object was a spreadsheet developed to keep track of the information that was required to draft the network's business plan – both what kind of information was needed from each hospital, and whether this had been delivered or not. Another boundary object was developed to enable the drafting of common care paths. The transfer of information on the specifics of each hospital's care paths was facilitated by a spreadsheet that worked as a common template. Both of these boundary objects were drafted by representatives of the academic hospital and agreed on by the other strategizing team members

before they began to be used. Moreover, beyond occasional adjustments – for instance, whenever the strategizing team decided on a new type of information to be transferred – these boundary objects worked in practice as they had been designed.

The network's knowledge boundary distribution also allowed the GynOncNet strategy articulation to take place predominantly through textual artefacts (as opposed to only being facilitated by them). As the tables in Appendices 1 and 2 show, the strategizing team's meetings featured little if any true negotiations, and were instead geared on discussing three key strategic documents developed in the network: its project contract, its patient distribution proposal, and its business plan. All three were first drafted remotely (primarily in the academic hospital, though the general hospitals did, at times, provide new input over email), and then commented on during meetings or over email. This manner of strategizing was possible for two reasons. First, because the strategizing team members – as representatives of their respective general hospitals – had a common goal and no (apparent) conflicting interests (i.e. no pragmatic boundaries to span). Second, because they all had similar dependencies generated by the network they were trying to set up, and needed no translation (i.e. no semantic boundaries to span).

Insurance company oriented strategizing: Acknowledged issue selling

In a general sense, the GynOncNet actors had two boundaries to navigate when strategizing with the insurance company representatives. The first was inter-organizational, as the insurance company was a different organization, with its own, specific interests. The second was professional, generated by the fact that, although the insurance company representatives may have had a broad understanding of the issues at work in the healthcare sector – seeing as they operated in it – they were nevertheless unfamiliar with specific medical profession concerns. From a knowledge boundary perspective, these two differences generated pragmatic and semantic boundaries between the two parties, respectively. These boundaries were navigated both through boundary objects and boundary spanners, and proved especially problematic, as I will show below.

The first difficulty in the two parties' strategizing came from the very purpose of their interaction. The strategy articulation process described above was truly collaborative, with the GynOncNet strategists equally concerned with

the outcome of the strategizing process. As a result, they were also equally concerned with designing and/or approving the boundary objects that would be used in the process. In contrast, the strategizing interactions between GynOncNet and the insurance company were a similar to a case of issue selling, with GynOncNet being the interested party and the insurance company having to be convinced of the relevance of the strategists' proposal. As a result, the GynOncNet strategists were the only ones concerned with – and involved in – developing the two key boundary objects that were used in their interactions. The first boundary object – the September 2010 PowerPoint slide deck – had been developed before any contact was had with the insurance company representatives. For the second boundary object – the final version of the business plan (December 2011) – the GynOncNet strategists' framing efforts were only informed by the insurance company representatives' comment (from September 2010) that the network's financial implications and patient care distribution be more concretely outlined. The two parties had no further contact in this period. This comment being particularly broad, the content and framing of the business plan continued to be more representative of what the GynOncNet strategists assumed the insurance company representatives needed to know rather than what the latter actually needed to know.

Although these interactions were similar to GynOncNet's remote strategy articulation – in that textual artefacts were prepared in advance and discussed after the fact – the result of this remote strategizing differed. The insurance company representatives made no decision regarding the network's funding in either the September 2010 or the January 2012 meeting, each time stating that they needed more information. Moreover, although the content of the business plan remained the same after the January 2012 meeting, it had to once again be presented and explained to the insurance company when one of its representatives was replaced. This suggests that the boundary objects were not effective on their own. As I will elaborate in the discussion section, I would argue that this was because – in this second context – the boundary spanning parties had key pragmatic and semantic differences, which made remote strategizing insufficient for their interactions.

The second difficulty in the strategizing between GynOncNet and the insurance company came from their consistent failure to span the semantic boundary between them. One of the reasons why the GynOncNet strategists had a preliminary meeting with the insurance company representatives instead

of approaching them with a finalized business plan was that they wanted to get their input on how to develop the document in the first place. In terms of knowledge boundaries, they hoped to span the semantic boundary between them and the insurance company – that is, clarify their respective dependencies and differences – in order to draft a boundary object that would allow them to properly navigate the pragmatic boundary between them. In September 2010, although the PowerPoint slide deck they had prepared facilitated their interaction, the key boundary spanning mechanisms were boundary spanners: Robert on one side, and the insurance company representatives on the other. However, their interaction did not successfully span the semantic boundary, as the insurance company representatives' only comment was that the network's financial implications and specific patient distribution should be more explicitly outlined. While this comment gave the GynOncNet strategists some direction, it did not truly clarify what information the insurance company needed in order to properly understand GynOncNet's proposal, and thereby be able to make a decision regarding its funding. This may have been because this first interaction took place too early in the network's development, when the GynOncNet strategists had not yet finished articulating the network's strategy. For instance, the September 2010 PowerPoint slide deck only mentioned joint surgeries among the network's goals, but did not include joint consultation hours or the patient portal.

Their next meeting, in January 2012, also failed to span the semantic boundary between the two parties. This was indicated by the fact that the insurance company chose to delay its decision until NAHIC issued an opinion on the reimbursement of joint surgeries. As a result, it remained unclear if the insurance company's interests ran counter to those of the network, once again leaving the potential pragmatic boundary between them unproblematized. The semantic boundary was only properly addressed during the parties' August 2012 meeting, when the insurance company representatives – at the GynOncNet strategists' request – explicitly indicated what information they needed in order to make a decision.

As a result, their final meeting, in October 2012, was focused on navigating the now clarified pragmatic boundary: GynOncNet argued for the qualitative benefits it would bring to the region's gynaecological cancer care, and both parties were aware of the potential financial implications of setting up the network. However, the pragmatic boundary was not successfully spanned during

that meeting, as no decision was made about funding the network at that point. Moreover, the two parties did not continue their strategizing in a way that would allow them to negotiate towards creating a common interest – a key aspect of successfully spanning a pragmatic boundary. Instead, the insurance company representatives requested that GynOncNet prepare a new overview of their estimated costs (reframed in terms of insurance reimbursement models) and have each hospital's respective Executive Board discuss it with them. However, the Executive Boards did not discuss GynOncNet's proposal in their meetings with the insurance company, and in the end GynOncNet's strategizing efforts towards the insurance company failed.

To summarize, the main knowledge boundaries at work between the GynOncNet strategists and the insurance company representatives were semantic and pragmatic ones. The parties' interactions took place through boundary spanners – during meetings and presentations – and were facilitated by boundary objects – the 2010 PowerPoint slide deck and the 2011 business plan. Both boundary objects were drafted and finalized in advance by GynOncNet actors, with little, if any, input from the insurance company representatives. Overall, the two parties' strategizing process was characterized by several delayed decisions on the insurance company's part, and a high degree of unilaterality. The former resulted from the parties' consistent failure to span the semantic boundaries between them, which ensured that the insurance company only truly understood GynOncNet's proposal at a very late stage (the October 2012 meeting). In addition, it led GynOncNet to think that the insurance company was likely to approve their proposal for quite some time (until the August 2012 meeting).

I would argue that the rather imbalanced nature of the parties' strategizing resulted from the issue selling nature of their interaction. Issue selling typically involves one party developing a proposal almost independently, and then submitting it for deliberation – whether on its own or during explanatory presentations – to the other party (Dutton & Ashford, 1993; Dutton et al., 2001; Howard-Grenville, 2007). In line with this, GynOncNet's boundary objects were developed with little to no input from the insurance company before they were used in practice to span the semantic and pragmatic boundaries between them. Another implication of their issue selling-like interactions was the fact that both the insurance company and GynOncNet seemed to view the latter's proposal as something to be either approved or rejected, and did not seem to negotiate

towards an amiable solution for both parties. Similar to some accounts of issue selling (Dutton et al., 2001), although GynOncNet proposal could be brought up again at a later time (in a similar or an adjusted form), there was the notion that the decision makers' resolution within *this* strategizing process would be final.

Executive Boards oriented interactions: Unacknowledged issue selling

In a general sense, the boundaries that the GynOncNet actors navigated when strategizing with their respective Executive Boards were hierarchical – between the medical partnerships they represented and the top managers – and professional, as the top managers were not, themselves, experienced in gynaecological cancer care. From a knowledge perspective, these generated potential pragmatic boundaries – as each party had their respective interests with regard to the financial resources required to support GynOncNet operations – and semantic boundaries – as the top managers would need to be briefed regarding the implications of organizing gynaecological cancer care in the region. In contrast to the network's strategizing interactions with the insurance company, the difficulties that would eventually lead to the negative outcome of GynOncNet's strategizing did not result from failing to span these knowledge boundaries, but because the boundaries' existence was not acknowledged in time.

At the start of GynOncNet's strategizing process, the strategizing team assumed potential pragmatic and semantic boundaries between all the key parties, including the Executive Boards. Appointing an external advisor to interview the Executive Boards was their attempt to address the potential semantic boundaries, as the advisor was meant to determine any requirements or general views that the Boards had regarding the network. During the interviews, the parties' dependencies and differences seemed to revolve around the relatively low contributions that the hospitals hoped the Boards would contribute to the network; in clarifying these, the report suggested that the semantic boundaries between the parties had successfully been spanned. Beyond this, the advisor's report also suggested to the GynOncNet strategists that there were no pragmatic boundaries between them and their respective Boards. In the early stages of the network, when the GynOncNet actors were relatively optimistic that the insurance company would fully fund the network, the potential pragmatic boundaries between them and their Executive Boards concerned the (relatively small) amounts that the actors hoped the Boards

would contribute to the network's operations. The external advisor reported that the Boards had declared themselves fully in favour of the network, being also willing to support it financially (to the expected extent). As a result, the actors foresaw no conflict of interests between them and the Boards.

Indeed, several interactions between GynOncNet and the Executive Boards proceeded straightforwardly. Here too, the parties interacted remotely, via textual artefacts which the GynOncNet actors submitted to the Executive Boards: the finalized business plan, a memo (sent only to the academic hospital) requesting temporary funding for the year 2012, and a second memo (sent only to the academic hospital) asking for an extension of that funding and/or a discussion about the network's funding. Their last interaction was indirect – mediated by the hospitals' purchasers of medical services – but also revolved around a textual artefact, namely: the network's reframed financial proposal, which the GynOncNet actors asked the Boards to discuss with the insurance company. The first two remote strategizing interactions were successful, when GynOncNet and the Boards did not have differences in interest or meaning (i.e. pragmatic and semantic boundaries, respectively) concerning their topic of interaction. However, the last two remote strategizing interactions failed: the Executive Boards did not discuss the network with the insurance company, nor did the academic hospital's Executive Board meet with the gynaecology division to discuss possible financing options[16].

I would argue that the failure in the latter two cases ultimately resulted not from improperly spanned boundaries (i.e. due to ineffective boundary objects), but because the latent semantic and pragmatic boundaries between the Executive Boards and the network were acknowledged too late in the process. Thus, when both the GynOncNet actors and the Executive Boards thought the hospitals were only required to contribute relatively low amounts to fund the network, the parties' interests were not in conflict. Once it became likely that the insurance company would only reimburse part of the network's costs, GynOncNet turned to the Boards as potential sources of long-term funding; at this point, their interests conflicted. The latent pragmatic issue, then, was the particular amount that the Boards would be willing to contribute to the network's operations, and how it compared to the amount GynOncNet actually needed in order to function. This had never been explicitly discussed between the parties

16 Although my data does not explicitly mention this, I can infer it from the fact that no textual artefact at my disposal made a mention of such a meeting occurring, not even the minutes of the following two GynOncNet strategizing team meetings, in January and June 2013).

before, as both the Executive Boards and the GynOncNet actors assumed the network would rely on the insurance company as its main source of funding. For instance, one Executive Board member explicitly mentioned that the insurance company should cover some of the costs during their interview with the external advisor. Further proof of this is the GynOncNet strategists' optimism regarding the insurance company's positive decision, which could be noted in their intra-network communication. It could also be noted in the first memo they sent to the academic hospital's Executive Board, where they mentioned that the insurance company was "in principle, positive towards [the network]", but that the process was delayed by the company's merger. Considering this, the latent aspect of the semantic boundary between the parties was GynOncNet's true financial dependency. Although the external advisor's interviews touched on there being a need for "some" financial contribution from the Boards, the full extent of the network's financial needs was not explicitly addressed until the very end of the strategizing process.

If the GynOncNet actors had approached the Executive Boards from the start as potential sources of significant funding – and thus, relevant issue selling parties – it may be that the Boards would have been more open to negotiating new solutions at the end of the strategizing process. For instance, the Boards could have agreed to provide a higher (though not full) amount – not enough to also support the patient portal and the joint consultations, but high enough to support all the joint surgeries. The Boards could also have negotiated with the insurance company (along with, or on behalf of GynOncNet), finding some balance between GynOncNet's array of services and the different contributions that the four hospitals and the insurance company would, together, be willing to make. However, since the Boards did not engage in a dialogue with the GynOncNet strategists or the insurance company on these topics, neither of these (or other) amiable solutions was even considered – and thus, the pragmatic boundary between them was not spanned. The Executive Boards' refusal to fund the network themselves was not entirely surprising, since they would have had to contribute significantly larger amounts in the new context of GynOncNet receiving only partial financial support from the insurance company. What *is* notable is the lack of dialogue on the topic. And although it is not certain that the Boards would truly have acted differently if they had been viewed as significant negotiating parties from the start of the strategizing process, the GynOncNet actors *not* viewing them as such removed that possibility entirely.

Discussion and conclusions

Strategizing insights developed through a knowledge boundary lens

In the previous sub-sections, I have presented GynOncNet's strategizing process through a knowledge boundary lens. In particular, I have highlighted the ways in which the network's key actors navigated the syntactic, semantic, and pragmatic differences between them when carrying out strategy work. As I will elaborate below, doing so allows me to explain why the network's strategizing efforts ultimately failed, despite a promising start and a seemingly straightforward strategizing process.

To begin with, my findings have shown that boundary objects were predominantly used to span syntactic and pragmatic boundaries, whereas semantic boundaries were predominantly spanned by boundary spanners. Thus, the GynOncNet strategists used specially developed spreadsheets to keep track of and standardize information transfers when articulating their strategy (for the syntactic boundaries between them), and memos and various business plan versions to outline and substantiate their strategic interests (for the pragmatic boundaries between GynOncNet and the insurance company and Executive Boards). In addition, although boundary objects were used to facilitate interactions across semantic boundaries, the most effective clarification of each party's dependencies and differences was achieved through the work of boundary spanners. This was the case between the medical partnerships (via the external advisor's interviews), between GynOncNet and the insurance company (during GynOncNet's presentations), and between GynOncNet and the Executive Boards (via the external advisor's interviews). Overall, these ways of using boundary spanning mechanisms are in line with current insights regarding the spanning of knowledge boundaries (Carlile, 2002, 2004). Where my study does contribute is by exploring the implications of these boundaries and boundary spanning mechanisms in a strategizing context.

First, apart from indicating when boundary objects would more likely be used while strategizing across boundaries, the previous section has also uncovered an overall pattern of effective remote strategizing via textual artefacts in some contexts as opposed to others. The GynOncNet actors predominately articulated the network's strategy remotely, by drafting a number of textual artefacts and commenting on them after the fact, either in person or over email. Remote strategizing was also employed when interacting with the Executive

Boards, as the GynOncNet actors submitted their funding requests to the Board(s) via textual artefacts (their business plan and memos). This mode of strategizing was effective throughout the entire articulation process, and was shown to be effective in the case of the Executive Boards in the two interactions when the Boards and the network had no differences in interests or meaning. In the case of the insurance company, remote strategizing was shown to be ineffective throughout the entire process: each time an insurance company representative was replaced, the network's goals and their implications (as addressed in the business plan) had to be explained to the new representative, even though the content of the document remained the same. All this suggests that actors who need only span syntactic boundaries would be able to strategize remotely, by drafting and commenting on textual artefacts that would thereby embody rather than just facilitate the strategizing process. In contrast, those dealing with semantic and pragmatic boundaries would also need to rely on inter-personal strategizing.

Among other strategy-as-practice studies on the uses of textual artefacts, the remote, text-reliant strategizing mode highlighted in my study most closely resonates with recent insights into the development of strategic documents. For instance, Spee & Jarzabkowski (2011) showed that different interpretations of a remotely drafted strategic plan were resolved through talk early on, but that later work was done in the context of common meaning and fewer, less meaningful updates to the text. Giradeau (2008) described a situation where textual artefacts were mainly used to substantiate talk, in the context of deciding between different strategic choices. Re-examined with a focus on knowledge boundaries, these studies suggest that semantic or pragmatic issues were resolved by also resorting to inter-personal strategizing, whereas syntactic boundaries could allow for remote strategizing to continue effectively via text. My own study therefore pinpoints one of the underlying mechanisms common to both studies, and also explicitly highlights remote strategizing as a particular strategizing mode.

My findings also have a number of implications for spanning boundaries in an issue selling context. As previously indicated, the boundary objects developed in GynOncNet's strategizing process were effective when spanning syntactic boundaries (interactions between the GynOncNet actors, or early interactions between GynOncNet and the Executive Boards), but ineffective when having to span semantic or pragmatic boundaries (interactions between GynOncNet

and the insurance company, or later interactions between GynOncNet and the Executive Boards). This partly contradicts previous theoretical insights, which have suggested that boundary objects are the preferred mechanism for spanning pragmatic boundaries (Carlile, 2004). I would argue that this contradiction stems from the specificities of my boundary spanning context. For a pragmatic boundary object to be truly effective, the actors involved would need to have already clarified the differences and dependencies between them. This is not likely to occur in issue selling contexts, where the level of detail required to clarify these issues is usually reached with the help of proposals (i.e. the boundary objects) for which the issue sellers would have to "do their homework" in advance (Dutton et al., 2001). The interactions between GynOncNet and the insurance company, as well as insights from issue selling research (Howard-Grenville, 2007), suggest that boundary objects developed in issue selling contexts are more likely to be effective if they are designed by actors who have some understanding of the decision maker's possible dependencies and differences. In the context of my case, this is what the GynOncNet strategists tried to achieve through their first meeting with the insurance company representatives. Should this not be possible, the issue selling party should diligently question the decision-maker in order to develop this understanding, and adjust the boundary object accordingly – something that the GynOncNet strategists repeatedly neglected to do.

That being said, this assumes that the issue sellers would be the only ones involved in designing and adjusting the boundary object as needed. Indeed, issue selling research has explicitly acknowledged that, when attempting to span semantic boundaries, it is the issue sellers who try to clarify their dependencies and differences to the decision makers; the decision makers themselves are exempt from doing so (Howard-Grenville, 2007). This contrasts typical boundary spanning efforts, where both parties are thought to engage in translation efforts (Carlile, 2004). In the case of GynOncNet's strategizing with the insurance company, this skewed involvement brought delays on the decision maker's part and optimistic expectations on the network's part. Moreover, the semantic boundary was finally spanned only once the insurance company representatives actively engaged in the translation process and concretely outlined what information they needed from the network in order to make a decision.

Another aspect specific to issue selling contexts that impacted the boundary spanning efforts of GynOncNet's strategizing process was the decision

makers' propensity to either approve or reject the issue sellers' proposal, without pro-actively trying to negotiate towards an amiable solution for both parties (Dutton et al., 2001; Howard-Grenville, 2007). In the case study, neither the insurance company nor the Executive Boards (in their last two interactions with the network) seemed open to negotiations regarding GynOncNet's proposal. As a result, neither pragmatic boundary between the parties was successfully spanned, and GynOncNet's strategizing process ultimately failed. This may likely have occurred because both decision makers had more political power than the GynOncNet actors. In this respect, past boundary spanning research has noted that collaboration outcomes may be less advantageous for the "weaker" communities, particularly when dealing with pragmatic boundaries (Carlile, 2004). The issue selling literature has also acknowledged these challenges, suggesting that issue sellers can mitigate them by skilfully representing the relevance of the sellers' differences and dependencies (Howard-Grenville, 2007) – in effect, successfully spanning semantic boundaries. However, in GynOncNet's case, the collaboration partners did not seem to engage in this negotiation process in the first place – not even in the case of the insurance company, where the semantic boundary between it and the network was eventually spanned.

Overall, my case has shown that boundary spanning in an issue selling context features a likely failure to launch the negotiation process when approaching pragmatic boundaries, and the likelihood that the issue sellers are the only parties trying to clarify its differences and dependencies. This latter aspect, in turn, impacts the effectiveness of the boundary objects used in the process. The peculiar nature of this context becomes more apparent if one turns to the broader concept of boundary spanning types, namely: transformative and transactive boundary spanning (Levina & Vaast, 2013). Put simply, the former concerns creating new knowledge (involving pragmatic boundaries), and the later concerns translating and transferring existing knowledge (involving semantic and syntactic boundaries, respectively). Among the two, transformative boundary spanning has especially seemed to be viewed as a creative process towards which *both* communities work *together*. In contrast, transactive boundary spanning has been viewed rather more representative of interactions where one community funnels (and translates) information and knowledge towards another (Levina & Vaast, 2013). With this in mind, my case's boundary spanning interactions in an issue selling context provide an example of pragmatic boundaries being approached through transactive boundary spanning. That is,

instead of *jointly* developing a new solution, the actors only collaborated in the broader sense, by translating and transferring already existing knowledge (the previously developed artefacts) from one party to the other. This would suggest that boundary spanning in settings where communities are not equally invested in the collaboration process – or, in the case of my study, issue selling settings – unfolds differently than is typically theorized.

My findings' final underlying insight has to do with the latent semantic and pragmatic issues that eventually emerged in all three of GynOncNet's strategizing interactions. In the network's strategy articulation process, the actors' predominantly conflict-free interactions encountered unexpected disagreements when GynOncNet's concrete patient distribution proposal was unveiled. The insurance company was generally positive towards GynOncNet's proposal until the network's exact funding requirements were communicated. Finally, the Executive Boards were wholly supportive of the network until the moment that GynOncNet's financial needs grew significantly larger. In all three cases, the latent pragmatic boundaries only surfaced once a previously unaddressed dependency between the partners became clear. However, the impact of these latent issues on the strategizing process differed from one case to another. The latent issues between the partner hospitals, for instance, led to renegotiations and eventual agreement. In contrast, those present in GynOncNet's interactions with the Executive Boards undermined their entire strategizing process. GynOncNet's optimism regarding the insurance company's financial support shaped their strategy articulation process. First, the network's business plan was explicitly developed "for the insurance company," and addressed the Executive Boards only as minor contributors and players. In turn, the business plan's authoritative power (Spee & Jarzabkowski, 2011; Vaara et al., 2010) likely reinforced the strategists' particular focus on the insurance company as the only relevant source of financing. The network further obscured the Executive Boards' potential relevance by framing the insurance company's positive decision as relatively likely – what Howard Grenville (2007) refers to as skipping straight to solutions. This likely made GynOcnNet's financial dependencies seem "less real" to the Boards, and therefore, less likely to become a problem (Howard-Grenville, 2007). All this ensured that the GynOncNet strategists did not consider the Boards to be relevant strategizing partners until it was too late to approach them in an effective way. Thus, although GynOncNet's failed strategizing with the Executive Boards did feature improperly spanned

semantic and pragmatic boundaries, its failure was ultimately due to them not acknowledging the boundaries' relevance in the first place.

Contributions to theory and practice

My study aimed to add to the current insights on strategy work and inter-organizational collaboration by examining how actors strategize across knowledge boundaries (Carlile, 2002, 2004) in the context of a bottom-up initiated cancer care network in the Netherlands (GynOncNet). I focused on two issues: first, if and how the different knowledge boundaries that actors must navigate impact their manner of strategizing; and second, how actors make use of boundary spanning mechanisms to span these knowledge boundaries. Overall, I found that knowledge boundaries impact the actors' ability to strategize remotely, via textual artefacts; that issue selling is a type of boundary spanning with its own challenges, and thus, that the actors' strategizing activity – articulating or issue selling – can affect the effectiveness of the boundary objects they design; and finally, that latent semantic and pragmatic issues can be major impediments to strategizing outcomes.

Thus, my findings contribute to our insights into strategy work in a number of ways. First and foremost, they revisit the strategic process in general by framing it as one carried out across different types of boundaries instead of by particular actors. Placing the focus on boundaries and boundary spanning has revealed that actors can interact through different strategizing modes depending on the knowledge boundaries between them. This, in turn, allowed me to highlight an as yet understudied mode of strategizing: one significantly more reliant on textual artefacts than previously explored examples of strategy-making (e.g. Kaplan (2011); Maitlis and Lawrence (2003); Paroutis and Pettigrew (2007)). Both of these insights contribute to the strategy-as-practice research agenda on materiality (Vaara & Whittington, 2012). My focus on knowledge boundaries also allowed me to reframe issue selling as a particular form of boundary spanning, one where pragmatic issues are more likely to be dealt with in a transactive fashion (Levina & Vaast, 2013) – that is, with the issue sellers transferring and translating knowledge to the decision makers instead of the parties coming together to *jointly* create new knowledge. Doing so helps me explain why issue selling efforts fail even in cases when the issue sellers' dependencies and differences are effectively clarified (Howard-Grenville, 2007). In this respect, my study has also shown that, to effectively span the semantic

boundary between the parties, the decision makers must actively work to clarify their dependencies and differences as well, as opposed to previous indications that this responsibility lies with the issue sellers only (Howard-Grenville, 2007).

My study also brings some new insights to the knowledge boundary and boundary spanning literature. First, by applying Carlile's (2002, 2004) knowledge boundary framework in new empirical contexts – inter-organizational as opposed to inter-departmental, and focused on strategy as opposed to product development – I further increase its robustness. More importantly, by exploring the use and design of boundary objects in an issue selling context, I contribute to the recent investigation of boundary spanning processes in the absence of consensus (Star, 2010; Swan et al., 2015). Previous works on the topic have suggested that boundary objects can enable collaboration among groups even without common interests and mutual understanding (Lainer-Vos, 2013). My study acknowledges that boundary objects can be and are being used in such contexts, but that, in order for them to be effective, all the collaborating parties still need to be involved in their design and/or redesign. Going further, my study has suggested that, in the case of boundary spanning in an issue selling context – or, in general, in contexts with an imbalance in power – pragmatic issues tend to be dealt with in a transactive rather than transformative fashion. Thus, my study goes beyond past insights into uneven resolutions of pragmatic boundaries (Carlile, 2004), to show that boundary spanning in such contexts can be its own type with its own challenges.

On the whole, my study adds to the research on inter-organizational collaborations by examining how actors jointly develop their strategy, thus providing another empirical examination of the as-yet relatively little studied inter-organizational strategizing process (Deken et al., 2016). In this context, focusing on knowledge boundaries and the ways in which they are (not always successfully) navigated showcases the difficulties of a process that encompasses different interests, professions, and degrees of power. Moreover, by studying these aspects in the context of a bottom-up initiated collaboration, as opposed to the typically examined top-down oriented cases, I expand our empirical understanding of such agreements (Rosenkopf et al., 2001)

As for the practical relevance of my findings, this lies in the light they shed on the strategy making and selling processes in (healthcare) networks. For instance, the knowledge boundary framework used in my analysis can be a useful tool for practitioners, functioning as a framing device for the potential

breaks in understanding they might experience in their collaboration. It can help them acknowledge that both the inter- and intra-organizational parties involved in their strategizing efforts can be separated by pragmatic, semantic, and/or syntactic boundaries, and prepare for their interactions accordingly. My study has also shown that parties wholly external to the partner organizations can play a crucial role in their collaboration, and that dealing with them also implies navigating knowledge boundaries through the same mechanisms as when interacting with a partner. Another aspect highlighted by my study is the importance of ensuring that decision makers also clarify their dependencies and differences in issue selling contexts, and that they do this early on, to avoid the onset of latent conflicts of interest. In this latter respect, my study draws attention to the risks of relying too much on a collaborating party's optimistic sounding initial interest, and the importance of an effective spanning of semantic boundaries when trying to avoid surprising withdrawals of support. Last but not least, it provides suggestions for developing effective strategic documents (i.e. boundary objects) in an issue selling context, namely: involving the decision makers as much as possible – and as early as possible – in their design, actively involving them in eventual redesigns, and carrying out said (re)designs by issue sellers who have some understanding of the decision makers' possible dependences and differences.

Suggestions for future research and limitations

My study also opens some new avenues for future research. The first relates to my insight that issue selling contexts engender a specific form of boundary spanning, and its implications on boundary spanning in general, and boundary objects in particular. Thus, my study has provided an empirical example where a transformative issue was not handled though the *joint* work of the boundary spanning parties involved, but rather through a transactive boundary spanning mode where some parties attempted to transfer and translate knowledge to the other parties. In the process, the boundary object developed for the parties' purposes was similarly developed by actors from one side of the boundary, instead of through all the parties' joint work. I suggested in my study that these interactions resulted from the power-laden context that the actors were interacting in, where some parties (the issue sellers) had less power than others (the decision makers). Past research has indicated that boundary spanning can involve the (re)negotiation of power relations between groups (Levina & Vaast,

2013), and can also, in turn, be impacted by the power relations between these groups (Carlile, 2004). However, the boundary spanning literature has not, to my knowledge, explicitly focused on how such power laden boundaries – or, more specifically, hierarchical ones – are spanned. By developing in this direction, boundary spanning research could explore the contradiction uncovered in my study, namely: that although boundary objects may be most suited for spanning pragmatic boundaries, they are rendered less effective in such contexts whenever the more powerful party does not actively participate in their design or redesign.

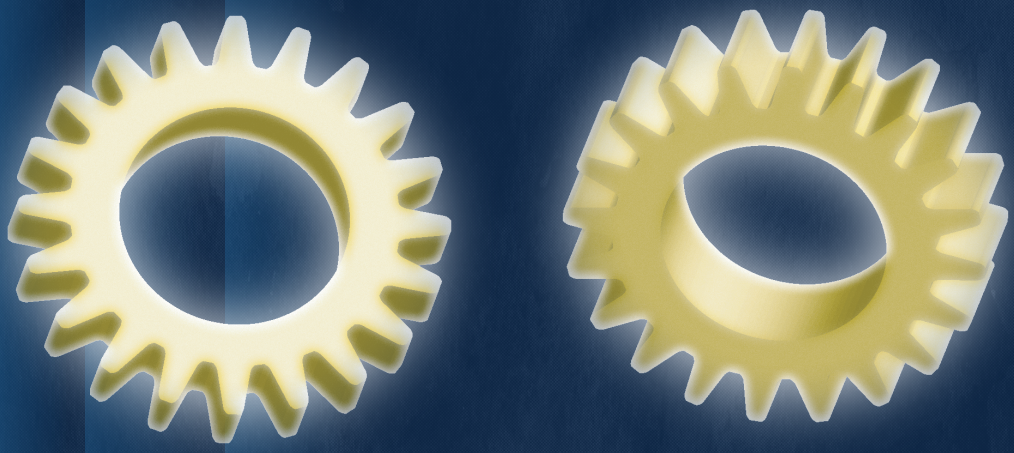
A second avenue for future research concerns my insight that different knowledge boundaries can support different strategizing modes. This relationship could be particularly useful when making sense of the differences and commonalities of distinct empirical cases of strategizing. Most empirical work in the strategy-as-practice field has been focused on one particular context in one particular case; although this has generated remarkable insights into the key micro-processes involved in doing strategy work, many of the findings are significantly tied to the idiosyncrasies of the studied case or strategizing process (Seidl & Whittington, 2014). Acknowledging this, a recent research agenda on strategy-as-practice and materiality has suggested that structured comparison could be used to generate larger claims on strategy work (Whittington, 2015). Based on my findings, I would propose that future research could do so by systematically keeping track of the different boundaries negotiated by strategizing actors in a variety of contexts.

In closing, I should acknowledge the boundary conditions of my own empirical context, namely: a strategizing process that was driven by mid-level and operational-level actors, whose inter-organizational interactions were enabled by pre-existing informal relationships and professional affiliations. These contextual factors could account for the strategizing actors' remote strategizing and extensive reliance on textual artefacts. However, that does not undermine the underlying logic of different boundaries between strategizing parties requiring different strategizing instruments. Future research on the topic in different contexts would expand and strengthen these still rather exploratory indications. For instance, how would a bottom-up inter-organizational initiative proceed, should the partners not share a profession, or should they have conflicting goals?

Another contextual factor that should be mentioned has to do with the insurance company involved in the network's strategizing process, and its

repeated contact person changes. It may be that this lack of boundary spanner continuity was a significant factor in the network's strategizing difficulties. To the best of my knowledge, the impact of inconsistent contact persons has not been explicitly studied in the issue selling literature. Studies in the field generally assume such continuity when addressing successful efforts (e.g. Dutton et al. (2001); Howard-Grenville (2007)), suggesting that a lack of continuity may indeed contribute towards an unsuccessful outcome. Moreover, pas research on the forging of inter-organizational relations has shown that discontinuity among key contact persons impairs the development of trust or commitment between partners, which in turn can hinder the ultimate decision to start the collaboration in the first place (Narayandas & Rangan, 2004). Nevertheless, this does not undermine the underlying logic of my argument. As I noted in my case narrative and analysis, each new contact person on the insurance company's side needed to be properly briefed about the network's proposal, which suggests that the boundary objects that GynOncNet had previously prepared and shared with the insurance company were not, on their own, sufficient to span the semantic boundary between the two parties. Instead, the semantic boundary was ultimately spanned during an inter-personal strategizing interaction, during which the insurance company clarified its own dependencies and differences.

From a methodological perspective, my study's main limitation stems from my retrospective examination of GynOncNet's development. Having gained access to the network quite late into its development (November 2012), I was unable to observe the strategizing actors' meetings or shadow their drafting and editing of textual artefacts. I therefore relied extensively on tracing the actors' strategizing through some of their email conversations and the actual artefacts they drafted. However, I would argue that the wealth of artefacts made available to me, the clearly preserved comments and changes brought to these documents across several draft versions, and the availability of emails and meeting minutes referring to these artefacts and their use were more than able to mitigate this limitation. Moreover, as previous studies have shown (e.g. Fayard and Metiu (2014)), the retrospective examination of collaboration processes based on historical data is both valid and relevant. Nevertheless, a longitudinal exploration of other inter-organizational strategizing processes would be likely to strengthen and enrich this study's insights.



Concept

In practice

Chapter 4

Thrown in at the deep end

A practice perspective on the development of boundary spanning skills

Previous versions of this chapter, which featured different conceptual frameworks, were presented during conferences as:

Patru, D., Lauche, K., van Kranenburg, H., Ziggers, G.W. (2014) *Integrating materials, meanings and competences: A practice perspective on developing inter-organizational coordination*. Paper presented at the 6th PROS Conference, Rhodes, 19-21 Au-gust 2014.

Patru, D., Lauche, K., van Kranenburg, H. and Ziggers, G.W. (2014) *Integrating materials, meanings and competences: A practice perspective on developing inter-organizational coordination*. Paper presented at the European Group of Organizational Studies conference, Rotterdam, 3-5 July 2014.

This chapter uses a practice perspective to unpack the development of boundary spanning skills in the context of inter-organizational collaboration in a Dutch healthcare network. I examined data collected through interviews, documents, and observations by framing the nominated boundary spanners' skill development as the progressively skilful enactment of the network's designed patient handover practice. I found that the nominated boundary spanners developed their skills through a new form of apprenticeship, where they learned not from experts within their own community, but from the partners' boundary spanners. Moreover, I found that the nominated boundary spanners developed their skills by progressively acquiring and developing the designed practice's elements: its teleo-affective structures, its practical understandings and rules, and finally its general understandings. In the process, I show that the successful development of boundary spanners-in-practice depends both on the nominated boundary spanners themselves, and the organizational actors that create and implement the structures within which the boundary spanners develop.

Introduction

Research on inter-organizational collaboration has so far mainly focussed on its structures, antecedents, and outcomes rather than the dynamic processes through which it develops (de Rond & Bouchikhi, 2004). Moreover, few studies examine the processes and practices through which partners align their operations – that is, how inter-organizational collaboration is set up, implemented, and adjusted (Gulati et al., 2012). Aligning operations inter-organizationally typically involves an attempt to pre-specify collaboration practices when shaping the inter-organizational workflow: actors are nominated, forms and procedures are outlined. These attempts rarely proceed as planned, but they can act as a starting point for new collaboration practices to emerge around. Based on this premise, my study aims to understand the development of inter-organizational collaboration by examining how the organizational actors nominated to carry out collaboration practices become increasingly skilful at doing so.

I frame the development of inter-organizational collaboration by drawing on two spheres of research. First, I approach collaboration from the boundary spanning research tradition, where studies have concerned themselves with the key actors through which communities of individuals can successfully interact

across a variety of boundaries (organizational (Tushman & Scanlan, 1981), geographical (Nicholson & Sahay, 2004), cultural (Gopal & Gosain, 2010), etc.). Thus, I conceptualize collaboration as the synergistic integration of key actors' expertise and concerns (Levina & Vaast, 2008), and its inter-organizational development as the process through which these key actors become boundary spanners-in-practice (Levina & Vaast, 2005).

Second, I examine this process of becoming from a practice perspective. Following Levina and Vaast (2005), I conceptualize the boundary spanners nominated to engage in inter-organizational collaboration as legitimate peripheral participants (Lave & Wenger, 1991), who develop their boundary spanning skills through apprenticeship. I then frame this apprenticeship process as the acquisition of a practice, and draw on Schatzki (2002, 2012) to conceptualize practices as consisting of four organizing elements: practical understandings, teleo-affective structures, rules, and general understandings. In so doing, I gain the analytical tools needed to track the nominated boundary spanners' gradual development from novices to experts. Ultimately, by combining these different theoretical lenses, I unpack a process which has yet to be empirically investigated in depth, namely: the development of effective (inter-organizational) boundary spanning.

I pursue this issue by analysing data from interviews, documents, and observations on the development of inter-organizational collaboration in a Dutch healthcare network between a hospital and the aftercare organizations in its region. My findings explain both the development of the healthcare network's main boundary spanning practice – inter-organizational patient handovers – and how the actors nominated to enact it learned to do so in practice. I first address the designed aspects of the patient handover practice, and show that the nominated boundary spanners' problematic start resulted from two miscalculations on the part of the practice designers. On the one hand, they made incorrect assumptions about the elements required to create the practice; on the other, they underestimated the resources that the nominated boundary spanners would need to acquire these elements. I then explore the practice's emergent development, leading to two major findings. First, I found that, in my empirical setting – the inter-organizational development of a new practice – the nominated boundary spanners' apprenticeship process took a different turn. While they still developed their skills through practising and feedback as proposed by Lave and Wenger (1991), they did so by interacting not

with experts within their own community, but with their boundary spanning counterparts across the organizational boundary. Second, I found that these interactions revolved around the progressive acquisition and development of the designed practice's elements: first its teleo-affective structures, then its practical understandings and rules, and finally its general understandings. This finding further unpacks the apprenticeship process, by revealing the successive points of focus in the novices' skill acquisition process.

My study contributes to the debate on boundary spanning by systematically showing how nominated boundary spanners develop into boundary spanners-in-practice. Having examined this process in an inter-organizational context, I also contribute to the knowledge on legitimate peripheral participation by showing how this learning model applies in cross-community settings. Furthermore, I contribute to the inter-organizational collaboration literature, by offering a clear, operationalizable approach to studying how partners align their operations in order to work together in practice. In so doing, I add to the current research on post-formation dynamics (Reuer et al., 2002). Applied to practice, my findings provide healthcare managers with a number of insights on designing and readjusting the inter-organizational enactment of patient handovers.

The remainder of this chapter is organized as follows. First, I address my conceptual framework by expanding on the research streams outlined above. I then introduce my empirical case and describe my data collection and analysis methods. Finally, I present and discuss my findings.

Conceptual framework

Boundary spanning as enacted through actors

When addressing collaboration across boundaries, the literature has developed two main areas of focus: boundary spanners (Williams, 2002) – the actors who carry out the collaboration – and boundary objects (Star & Griesemer, 1989) – the tools that enable it. Studies focused on boundary spanners have concerned themselves with identifying the roles and challenges associated with these actors, as well as identifying whether and when they achieve effective collaboration in a variety of contexts (Bartel, 2001; Levina & Kane, 2009; Nicholson & Sahay, 2004; Sullivan & Skelcher, 2002). That being said, these studies have also acknowledged the fact that, in practice, most attempts at pre-specifying boundary spanners fail. Thus, nominated boundary spanners may

not always become boundary spanners-in-practice (Levina & Vaast, 2005). The actors that do become boundary spanners-in-practice are more likely to emerge through "doing", in the course of the groups' attempts to collaborate. However, we know little about this process of becoming, beyond the numerous traits that a boundary spanner should possess in order to be effective (see Williams (2002) for an overview of these traits).

Most of our current insights into the development of boundary spanners come from the work of Levina and Vaast (2005, 2006, 2008, 2013). Their first major finding in this direction was that actors learn to become boundary spanners by participating in the practices relevant to each of the groups they are attempting to connect, and by being recognized as legitimate actors to do so (Levina & Vaast, 2005) The authors further identified this as a form of legitimate peripheral participation, a term coined by Lave and Wenger (1991) to conceptualize learning. In their later work, Levina and Vaast (2006, 2008, 2013) proposed that boundary spanners-in-practice build new joint communities when enacting collaboration between groups – based on already existing resources – by acquiring new identities, and developing new practices. This suggests that actors become boundary spanners-in-practice in the process of generating these practices, objects, and identities.

While their work offers highly informative outlines of a boundary spanner's process of becoming, questions remain on *how* boundary spanners generate these practices – particularly the nominated boundary spanners that lack the required resources. My study aims to answer these questions by exploring Lave and Wenger's (1991) legitimate peripheral participation and apprenticeship concepts in more depth, and enriching this perspective with Schatzki's (2002, 2012) conceptualization of practices – both of which I present in the following sub-sections.

Boundary spanning as an apprenticeship process

Lave and Wenger (1991) have argued that actors become knowledgeable in something by practic*ing* how to act, what to say or not say, what to expect, and what meanings to ascribe to individuals, actions, and objects. Engaging with the practice in this way – "absorbing and being absorbed in the culture of practice" (Lave & Wenger, 1991, p. 95) – turns actors into legitimate participants. Thus, participation is crucial to learning and the acquisition of the skill in question, being also what legitimizes the actors. According to Lave and Wenger (1991),

for actors to learn anything at all, they need to be recognized as part of the activity they are attempting to learn in the first place. This only truly happens if the actors effectively immerse themselves in the activity. Legitimate peripheral participation thus frames learning not as a cognitive process, but as a social one, in which new arrivals acquire growing competence by belonging, engaging, and developing new identities.

That being said, legitimate peripheral participation does not suggest that novices develop uniform learning trajectories, nor that those trajectories are unidirectional (with novices learning from their "masters" to progressively approach a "centre"). The term "peripheral" refers instead to the balance between how much an actor can learn from others and how much these others, in turn, can learn from that actor (Nicolini, 2012). Thus, the model argues that novices learn the written and unwritten rules both from their masters and their fellow novices, and that even experts can learn from their interactions with novices, potentially modifying the ongoing practice.

Novices also learn from their own mistakes and experimentations (Lave & Wenger, 1991), the latter of which, in turn, help them develop their own ways of doing (Ingold, 2011). Thus, as novices become increasingly skilful, they begin to bend the rules and become competent in their own specific ways – incorporating their mentors' sensibilities, but never merely reproducing them (Ingold, 2011). Viewed in this way, an actor's skill at enacting a particular practice is formative rather than a pre-configured "something" to be acquired, since it emerges and develops from an actor's own doings and sayings (Gherardi & Perrotta, 2013). In the context of my study, this explains the predilection of nominated boundary spanners to not function as planned.

The strength of the legitimate peripheral participation model lies in its framing of learning processes in a way that captures both conceptual and empirical aspects, and thus provides a vocabulary that allows for the general conceptualization of an ultimately individual process. As such, it has been very useful for addressing the emergence of skilled individuals (Nicolini, 2012), some of whom may function as boundary spanners. That being said, the model's implicit assumptions can make it an imperfect fit for some boundary spanning contexts. The first assumption regards the idea that novices join a community and learn its defining practice from fellow community members. This may be true for boundary spanners who join a community once some version of a boundary spanning practice has been developed. However, this is not always

the case. Moreover, the fact remains that boundary spanners, by definition, purposely interact with individuals from one or more other communities, therefore likely needing to learn from the other communities' members just as much as their own. The model's second assumption is that actors develop their skills gradually and emergently (Nicolini, 2012), thus overlooking cases when boundary practices are pre-specified and nominated boundary spanners must cope with a sink-or-swim environment. Judging from the high number of unsuccessful nominated boundary spanners (Levina & Vaast, 2005), this occurs often enough to require a conceptual framework that can take into account both designed and emergent development sources. My study proposes Schatzki's (2002, 2012) practice perspective as the added conceptual layer than can help us make sense of the development of boundary spanning skills and practices in such an integrative way.

Boundary spanning as the acquisition and development of practices

Schatzki (2002) defines practices as open-ended, temporally evolving sets of sayings and doings linked by four organizing elements: practical understandings, rules, teleo-affective structures, and general understandings. Practical understandings capture an actor's knowing how to recognize, enact, and react to something through doings or sayings (Schatzki, 2002). Rules are explicit directives or instructions on how to carry out a practice – whether written or unwritten (Schatzki, 2002). Teleo-affective structures are a dual concept that captures, on the one hand, a practitioner's focus on an ultimate end-goal when enacting a practice, and on the other hand, the emotions and moods that practitioners are expected to experience or express when doing so (Schatzki, 2002). General understandings explain an actor's attitude when enacting a practice, being general beliefs that are associated to a particular site and which can be a part of several practices enacted in that site (Schatzki, 2002).

Doings and sayings belong to a practice when they express some of the understandings, rules, and teleo-affective structures that make up that practice (Schatzki, 2012).Thus, the same or similar activities could mean different things and be part of different practices (Schatzki, 2002). Moreover, the activities that make up practices are intimately bound with material entities: doings and saying are carried out by embodied human beings who manipulate or react to material entities, which in turn would not exist without the practices that deal

with them (Schatzki, 2012). This intimate relationship between practices and material entities has led Schatzki to coin the notion of a *bundle* of practices and material arrangements (Schatzki, 2002, 2012).

In his more recent writings, Schatzki (2012) has addressed two possible modes for the evolution of bundles. The first is predominantly emergent, resulting from the indeterminacy of action. Thus, a practitioner's sayings and doings are determined teleologically and motivationally, but their activities are open until they act. At the same time, actors are sensitive to normativity, and usually proceed in light of the normative elements of the practices they are involved with. Nevertheless, there are no guarantees that the present and future will resemble the past. These issues imply that actors' activities cannot be controlled; this, in turn, implies that purposely creating bundles – the second mode of bundle evolution – "is more work" (Schatzki, 2012, p. 23). To establish a bundle, one would need to institute one or more practices and potentially create or alter existing material arrangements. According to Schatzki, the latter is relatively easier; the former requires that activities come to be organized by the four practice elements:

> *"To effect such an organization, tasks must be distributed, ends and purposes set or coalesced, and rules issued or disseminated. General understandings must be exemplified and repeatedly formulated if they are not appropriated from other bundles. People must also be trained if their repertoires of basic activities need to expand and be aligned with to-be-performed activities" (Schatzki, 2012, p. 23).*

That being said, since human activity remains uncontrollable, designers of practices and bundles can only create a description of the organization of elements. Once the bundle is established, it can proceed to unfold in unexpected ways, following the aforementioned emergent mode of development.

In my own boundary spanning context, this conceptual approach to human activity provides another explanation for why boundary spanners-in-practice are not necessarily the same actors that had previously been nominated. It also provides useful analytical tools for tracking the progressive development of collaboration as a form of boundary spanning. Specifically, conceptualizing boundary spanning as a practice or set of practices enables me to study its development by examining the design, acquisition, and development of its organizing elements.

My study's initial premise was that pre-specified boundary spanning practices – while usually enacted differently in practice – could function as a starting point for the development of collaboration between groups. I examine this development process by integrating the conceptual approaches presented above in the following way. First, I frame the development of boundary spanning skills as a process of learning through apprenticeship, and use legitimate peripheral participation to examine this development process among nominated boundary spanners. According to this framing, the nominated (novice) actors would successfully act as boundary spanners-in-practice once they expertly enact the boundary spanning practice in question. Second, I conceptualize this boundary spanning practice as consisting of Schatzki's four organizing elements, and frame its increasingly skilful enactment as the acquisition and development of its organizing elements. Thus, this additional framing allows me to study the apprenticeship process – and so, the development of nominated boundary spanners into boundary spanners-in-practice – in more depth. In the following sections, I apply these concepts in the context of inter-organizational collaboration development in a Dutch healthcare network.

Methods

Case background and history

Many healthcare organizations engage in inter-organizational collaborations in order to deal with the high costs and fragmentation that characterize healthcare systems worldwide (Wells & Weiner, 2007). In the Netherlands, the government indirectly supports these initiatives by following a policy of care concentration, which involves the centralization of acute and complex care to specialized healthcare centres (RVZ, 2011). The resulting system fragmentation is countered through the proliferation of healthcare networks, which the Dutch government explicitly advocates (RVZ, 2011). The care concentration policy also drives healthcare organizations to discontinue or externalize services that do not directly contribute to their specific provision of care, especially once government cuts lead to less funding.

In this context, the healthcare network I studied began to develop when a general Dutch hospital (Regos[17]) decided to reduce the services that did not directly contribute to the execution or delivery of specialist medical care,

17 All the names used in this chapter are fictitious, to maintain anonymity.

in response to reduced governmental funding. Among these services were the patient handovers carried out by its department of specialized transfer nurses. In order to eliminate the transfer department, Regos' Executive Board decided to reallocate some of the handover-related tasks to each of their twelve nurse wards. Others would be externalized to the aftercare organizations with which they already had informal relationships (which would now be formally recognized as partners in a newly built network). As a result, a new inter-organizational patient handover procedure was developed – mainly by Regos actors, though with input from the aftercare organizations. The procedure's development started before the inter-organizational collaboration officially began, and continued as operations went on.

The new procedure's implementation was faced with resistance and fragmentation. The transfer nurses and the rest of the staff were notified about the changes to come in the last quarter of 2010. Most of the transfer nurses found new positions in the first half of 2011; a remaining three only managed to do so in 2012. These three transfer nurses were asked to help the ward nurses in the transition period; however, they refused to pass on their skills, or did so to an insufficient degree. Moreover, in the new procedure's implementation, each Regos ward could adapt to the new way of working as they saw fit: a few wards assigned specific nurses to take up patient handover duties, while the rest chose to spread these duties across all nurses. Because of this, and because of the only fragmented support they received, most of the ward nurses experienced great difficulties in carrying out patient handovers when the new handover procedure was properly kick-started in 2012. Patients began to be wrongly allocated to aftercare organizations, and information transfers were incomplete. By January 2013, when my data collection started, most of the ward nurses still had quite fragmented information on how to carry out the patient handovers.

Research design

I used a qualitative and exploratory single embedded case study design (Yin, 2009) to examine the collaboration between four of Regos' nurse wards and three of its ten aftercare partners: two nursing homes (Ace and Bird) and one home care organization (Zeta). Although I originally planned to include four of the hospital's partners in my study, only three organizations agreed to participate. The embedded units of analysis were the hospital's four nurse wards' – in particular, their patient handovers towards the aftercare partners.

The two types of aftercare organizations offered different types of patient care, and as a result, had somewhat different patient handover flows with the hospital. As nursing homes, Ace and Bird offered short term (up to 80 days) housing and care for patients who needed around the clock attendance and rehabilitation support in order to return to full or partial health; after this period of time, the patients would be discharged home or to care homes (facilities with less intense care). The care path between Regos and Ace or Bird therefore implied the transfer of the patient's information/history as well as his or her physical transfer from one location (the hospital) to another (the nursing home). As a home care organization, Zeta offered care and nursing services at the patient's home. The care path between Regos and Zeta therefore only implied the transfer of the patient's information/history from the hospital to the home care organization – the services of the latter being administered to the patient at his/her own home. An added difference between the two types of aftercare organizations was that Ace and Bird had departments that offered specialized services (post stroke care, chronic obstructive pulmonary disease care, etc.) – and therefore each aftercare department only liaised with the Regos wards for whose patients they offered care; Zeta could liaise with all hospital wards.

Of the hospital's twelve nurse wards, four agreed to participate in my study: neurology, pulmonary disease, surgery, and cardiology. The surgery ward had carried out more or less correct patient handovers from the start, the cardiology ward had improved over time, and the neurology and pulmonary disease wards had consistently had problematic handovers. At the same time, the neurology and cardiology wards were likely to have complex and/or unpredictable patient cases, while the surgery and pulmonary disease wards had relatively simpler ones. I could therefore expect that the successful enactment of patient handovers across wards did not mainly result from the specificities of the wards' patients.

Data collection

I collected the data through retrospective semi-structured interviews, document analysis, and observations. I chose interviews in order to benefit from interacting with the participants, which would help me to understand the sectoral and organizational contexts (King, 1994). I opted for semi-structured interviews, as this enabled a uniform approach while at the same time allowing participants to talk freely and address whichever topics were most important to them in more depth. My topic list covered the current state and practices of the collaboration,

how the collaboration started and was planned for, its implementation and potential bottlenecks, and the participants' hopes for future developments.

The interviews were conducted in January-November 2013 with Regos, Ace, Bird, and Zeta employees who designed, implemented, and/or enacted the patient handover practice between the hospital and its aftercare partners. In total, I conducted interviews with 21 participants, of which 4 were contacted for follow-up interviews about four months after the initial interviews (see Table 4.1 for an overview of their functions and organizational affiliation). The interviews were conducted in Dutch or English, according to the participants' preferences, and lasted 45 minutes on average. All interviews were audio-recorded, and all but two were transcribed verbatim (two recordings were lost due to recorder malfunction). The information in one of these two interviews was recovered in detail via immediate post-interview note taking; most of the information from the second one (a follow-up interview) was lost.

Table 4.1. Overview of participants

Role of interviewee	Regos	Ace	Bird	Zeta	Total
Middle managers	1	1*)	1*)	1	4
Ward leaders	5*)				5
Nurses	5*)			1	6
Heads of department		1			1
Care coordinators		1	2		3
Doctors		1	1		2
Total	**11**	**4**	**4**	**2**	**21**

*) *follow-up interview with one interviewee*

Access to Regos participants was gained through the hospital's CEO, who introduced me to the middle manager in charge of developing the collaborations with the aftercare partners (and who coordinated several nurse wards as part of her regular duties). She facilitated my contact with the regional managers of the three aftercare partners (themselves middle managers in their organizations' hierarchies, who coordinated several aftercare locations in their region), as well as with Regos ward leaders and nurses. Access to the partners' department managers, care coordinators[18], nurses, and doctors was gained via their regional managers.

18 There is no consensus on the definition of a care coordinator (often also referred to as case manager or social worker). In this context, a care coordinator is the aftercare employee responsible for setting up the patient's rehabilitation trajectory by synthesizing information from several sources and medical specialties.

I also examined a number of relevant documents (e.g. project development plans, meeting minutes; see Table 4.2 for a full overview). My use of documents not only helped me gain additional insights into the network's organizational processes (Forster, 1994), but also facilitated my historical reconstruction of the inter-organizational collaboration practice's design and implementation. Of the four organizations, only Regos and Zeta shared documents with me. In both cases, all the documents I had access to originated in Regos, Zeta having granted me access to documents they had received over email from their Regos contacts.

Table 4.2. Overview of documents

Documents	Number of documents	Number of pages
Development plans	5	67
Evaluation documents	4	19
Inter-organizational collaboration contracts	1	2
Training materials	6	51
Meeting minutes/agendas/materials	6	12
Newsletters	2	9
Official notices	2	4
Information for patients	3	9
Patient handover documents	2	3
Total	**31**	**176**

Finally, in order to confirm and expand my understanding of the designed and emergent aspects of the organizations' collaborative boundary spanning practice, I also performed 16.5 hours of observations in the Regos wards[19]. Of these, 1.5 hours of observations were of multi-disciplinary meetings[20], and 15 hours were spent observing nurses enact patient handovers. An observation of a thirty-minute multi-disciplinary meeting and one hour of patient handover observations were conducted in December 2013; the rest were conducted in March 2014. Extensive notes were taken during and after the observation intervals, chronicling the issues discussed in multi-disciplinary meetings, the nurses' patient handover tasks and their comments and explanations to me, and

19 I should note that the observations were predominantly performed in the surgery and cardiology wards. Nevertheless, my informal conversations with the neurology and pulmonary disease ward nurses, and the interviews conducted with actors *from* these wards and others who shared their opinions *about* these wards all support the observation-based image of the handovers conducted here.

20 Regular meetings between doctors and nurses on the nurse ward, used to discuss patient progress and treatment.

the atmosphere and layout of each ward's patient handover station (50 A5-size pages written by hand).

Data analysis

As Regos was the organization that underwent the greatest organizational changes, and since the majority of my data originated in Regos, I approached my analysis by placing the hospital centre stage. Throughout the data analysis process, I consulted with my supervisors regarding the usefulness of the concepts I used to explain my empirical insights. As outsiders to the field setting, they took up the roles of devil's advocates (Nemeth et al., 2001), asking critical questions and suggesting alternative interpretations for the data in order to improve the emergent theorizing.

I began my analysis by examining the interview and document data to understand the development of the healthcare network in general and of its patient handover procedure in particular. As this handover procedure provided the most visible boundary spanning element in the network's inter-organizational collaboration, I chose it as the boundary spanning practice whose acquisition I would analyse. When examining the handover procedure's development, I identified three actor categories. The first category consisted of the designers: Regos actors who pre-specified the boundary spanning practice and nominated the Regos ward nurses as the future boundary spanners. The second category consisted of the Regos users: Regos ward nurses who acted as the hospital's nominated boundary spanners. The third category consisted of the aftercare users: care coordinators, doctors, and nurses working in the hospital's partner organizations, who interacted with the ward nurses regarding patient handovers. Of these aftercare actors, the care coordinators were the nominated boundary spanners. Unlike the ward nurses, the care coordinators had already been functioning as inter-organizational boundary spanners before the network's development. Because of this, I focused my analysis of the development of boundary spanning skills on the Regos ward nurses.

After identifying the boundary spanning practice and the actors involved in designing, implementing, and enacting it, I began to investigate how the hospital's nominated boundary spanners developed their boundary spanning skills. At this point in my analysis process, that meant their learning how to enact the designed patient handover procedure in practice. With the legitimate

peripheral participation learning model as my sensitizing concept, I examined the interview, document, and observation data, making note of the users' and designers' accounts of the ward nurses' problems, work-arounds, and sources of learning over time. I noted that the Regos ward nurses' learning trajectories broadly fit that of legitimate peripheral participation – novices learning by doing and through feedback, and experimenting along the way to becoming experts. However, my empirical case also featured a significant difference: the ward nurses were learning a new practice rather than pre-existing one, and as a result, had no experts within their practice community to support them. I therefore returned to the literature in search of a lens that would allow me to examine how this boundary spanning practice was developing, alongside the ward nurses' skill at enacting it. Because of its clear outline of practice elements, and its acknowledgement of, and applicability to, both effortful design and emergent development, I settled on Schatzki's (2002, 2012) practice perspective.

When re-examining my data from this perspective, I first identified the four practice elements associated with the designed boundary spanning practice. I then focused on the disruptions experienced by the users (mainly the Regos ward nurses) when trying to enact the boundary spanning practice as it had been designed. I also determined the missing boundary spanning resources that determined these disruptions: either the practice elements themselves, or the knowledge and experience that the ward nurses needed in order to acquire them. Finally, I cross-referenced the Regos ward nurses' learning trajectories (from a legitimate peripheral participation perspective) with their acquisition and development of specific practice elements over time (from Schatzki's practice perspective). I identified three developmental stages, based on the nominated boundary spanners' main focus: discharging the patient into the care of an aftercare facility by whatever means, doing so while trying (and failing) to follow the designed handover procedure, and doing so smoothly[21]. Each stage progressed as the ward nurses and care coordinators interacted in order to carry out patient handovers. I present these stages and my subsequent insights in the sections below.

21 I should note that these stages are representative of each individual nurse's learning curve – or, at best, that of each individual hospital ward – and *not* of the hospital as a whole, the patient handovers having improved at varying rates across the different hospital wards.

Findings

In this section, I present the Regos nominated boundary spanners' skill development process by showing how they learned to enact the designed (inter-organizational) boundary spanning practice of handing patients over to their aftercare partners. I structure this development in five sub-sections. First, I describe the designed handover practice and outline its elements – both those theoretically required for it to be enacted as such in practice, and those actually outlined by its designers. Second, I address the Regos ward nurses' starting conditions (stage 0) – that is, which practice elements they had acquired or were likely to acquire at the new handover procedure's introduction. Finally, I address the progressive acquisition of this boundary spanning practice by the hospital's nominated boundary spanners (stages 1-3).

The designed patient handover and its required elements as intended and in practice

The designed patient handover workflow consisted of a series of tasks that were to be performed by the nominated Regos and aftercare boundary spanners (see Figure 4.1). The Regos ward nurses would first need to categorize the patient in terms of ten care intensity packages. These packages indicated what kind of aftercare services the patient could benefit from and would be covered for by their insurance policies. The nurses would then upload the patient's information and categorization on a secure website used by both Regos and its aftercare partners. This was the first of two crucial information transfers in the inter-organizational handover flow. Based on the information provided at this time, the aftercare care coordinators decided if their organization could take a patient on. At the same time, the ward nurses were required to explain to the patient the broad lines of his/her aftercare trajectory and suggest appropriate aftercare organizations for the patient to choose from. Subsequently, they would update the patient's information on the secure website to include up to three choices of aftercare organizations. The aftercare partners' care coordinators would see the patient's entry on the secure website, and the preferred organization would then call the Regos nurse ward to request more information about that patient and determine whether their services were suitable for him/her. If the aftercare organization was indeed suitable, the ward nurse and the care coordinator would set a date for the transfer of the patient and/or the patient's information. The second patient information transfer occurred when the patient

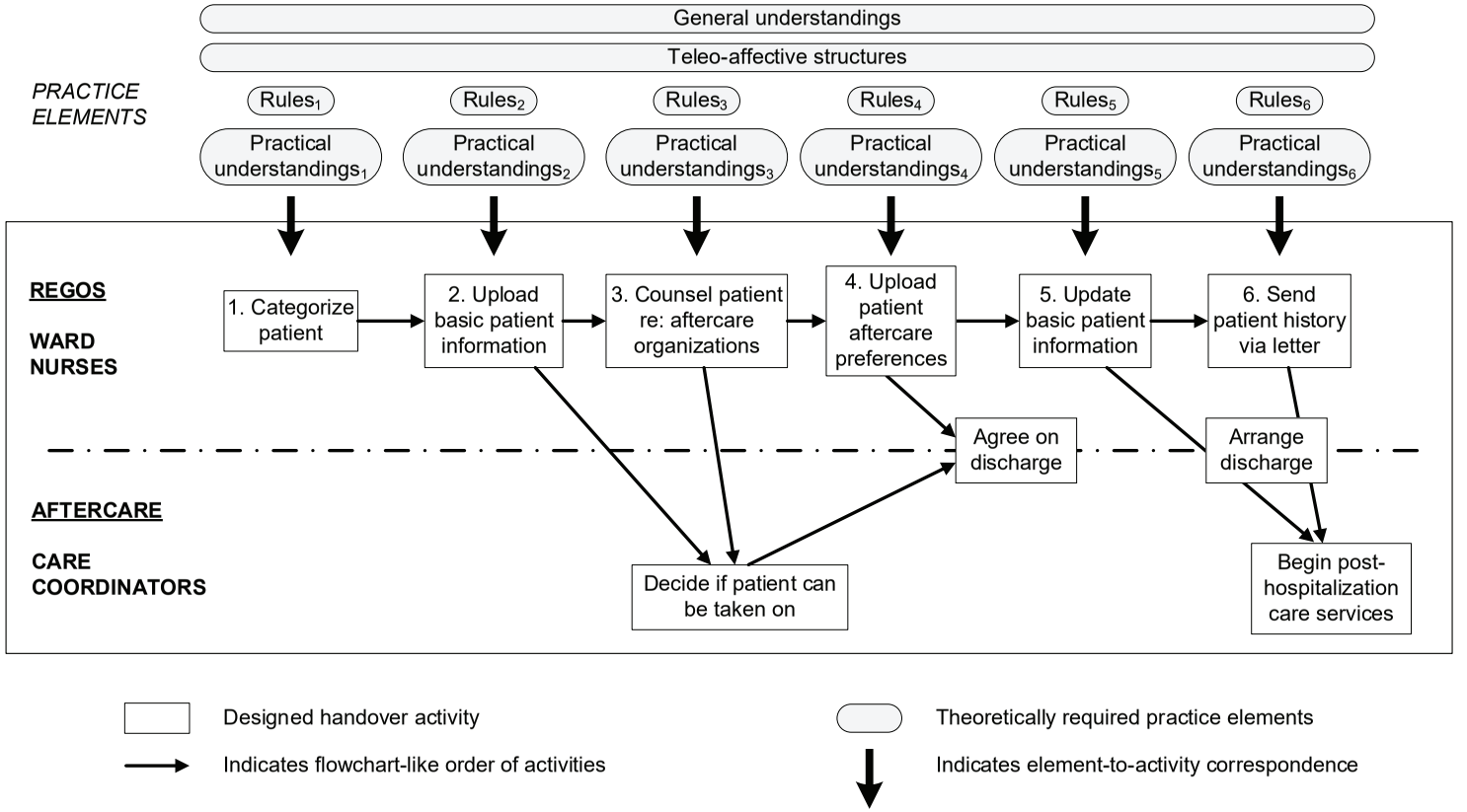


Figure 4.1. Designed patient handover practice and theoretically required elements

was discharged from the hospital (either to a nursing home, or to their own home with the support of a home care organization). At this time, the Regos nurses were required to update the patient's information on the secure website (in case anything had changed in the patient's care or needs in the meantime), and ensure that the full information package would be sent to the aftercare organization in the form of a letter. If all went well, the contact between the Regos ward nurse and the aftercare care coordinator for this particular patient would end. Deviations from these designed activities would disrupt the inter-organizational handover – which, as I show below, indeed occurred.

For the designed boundary spanning practice to be enacted, all the relevant actors would need to have acquired or developed[22] its respective elements (Figure 4.1). Thus, the Regos ward nurses would need to have a *practical understanding* of the boundary spanning practice – that is, understand and recognize the activities they were required to enact, as well as the care coordinators' responding activities. While this referred to all the activities outlined in the procedure, two practical understandings were key for carrying out the practice: categorizing each patient case (many made complex by multiple medical conditions) according to the correct care intensity package, and suggesting appropriate aftercare organizations. In order to do the latter, the nurses would have to be familiar with the aftercare organizations in the region, the types of specialized aftercare services they offered, as well as specific details about their facilities (such as how many patients would be housed in a room). The Regos ward nurses would also need to know and be able to apply the designed *rules* associated with the handover procedure – namely, the type of information that needed to be transferred to the care coordinators, and what type of aftercare services were covered by each care intensity package. Thus, as Figure 4.1 also shows, each activity involved different rules and practical understandings. Finally, the ward nurses would need to have the *teleo-affective structures* – that is, understand the handover's ultimate goal, and display the expected attitude towards it – and *general understandings* that were relevant for the patient handover. As Figure 4.1 also shows, these elements were consistent across the different activities that were part of the boundary spanning practice.

22 Throughout this paper, I refer to practice elements as being "acquired" if they had been pre-specified in the practice's design (*rules* and some aspects of the *teleo-affective structures*), or if the saying and doings they linked had already been well established before the nominated boundary spanners began to carry out the new practice (*practical understandings*). I refer to the elements as being "developed" if the nominated boundary spanners came by them through no pre-specified or pre-existing influence (*general understandings*).

However, the designers only explicitly specified two of the four practice elements (see Figure 4.2). They formulated *rules* for the handover procedure and partly developed *teleo-affective structures*, which only addressed the goal of the practice (ensuring that patients were properly discharged to aftercare organizations). *Practical understandings* had not explicitly been addressed; instead, the knowledge required to carry out the handover activities was expected to be acquired through the transitional support received from the transfer nurses. G*eneral understandings* had also not been explicitly addressed. I would argue that, by not specifying a different way of "doing things around here," the Regos designers implicitly reinforced the general understandings that had already been in force in the Regos wards before the new handover procedure was introduced. At the time, the general understandings relevant to patient handovers consisted of handing the patients over to whomever would ensure their discharge, and no longer being concerned with them once they left the hospital.

Stage 0: What the designers wanted vs. what the nurses had to work with

Because of the fragmented implementation in the hospital, the ward nurses did not acquire – or even, in some cases, become aware of – the rules or goals that the designers had formulated. For instance, the organization of the patient transfer workflow in Regos was left to the discretion of the ward leaders, who shared information about the new handover procedure to varying degrees:

> *"I was very active, but well, that was also because [the Regos middle manager] asked for my help early on. On my ward the change wasn't abrupt, let's put it like that. Other ward leaders were more along the lines of: when the transfer department is gone, then we'll see." (Former Regos surgery ward leader, one of the Regos designers)*

> *"I took it in my own hands: I talked to the patient myself, I put the patient's information on the secure website by myself, and after a while I just directed the other nurses. And I also invited [the designing ward leader], who is really an expert on it, to give some lessons to the nurses. And every ward did it its own way, really. Well, that's a thing that I think could have been better." (Regos surgery ward leader, addressing his actions in his previous ward)*

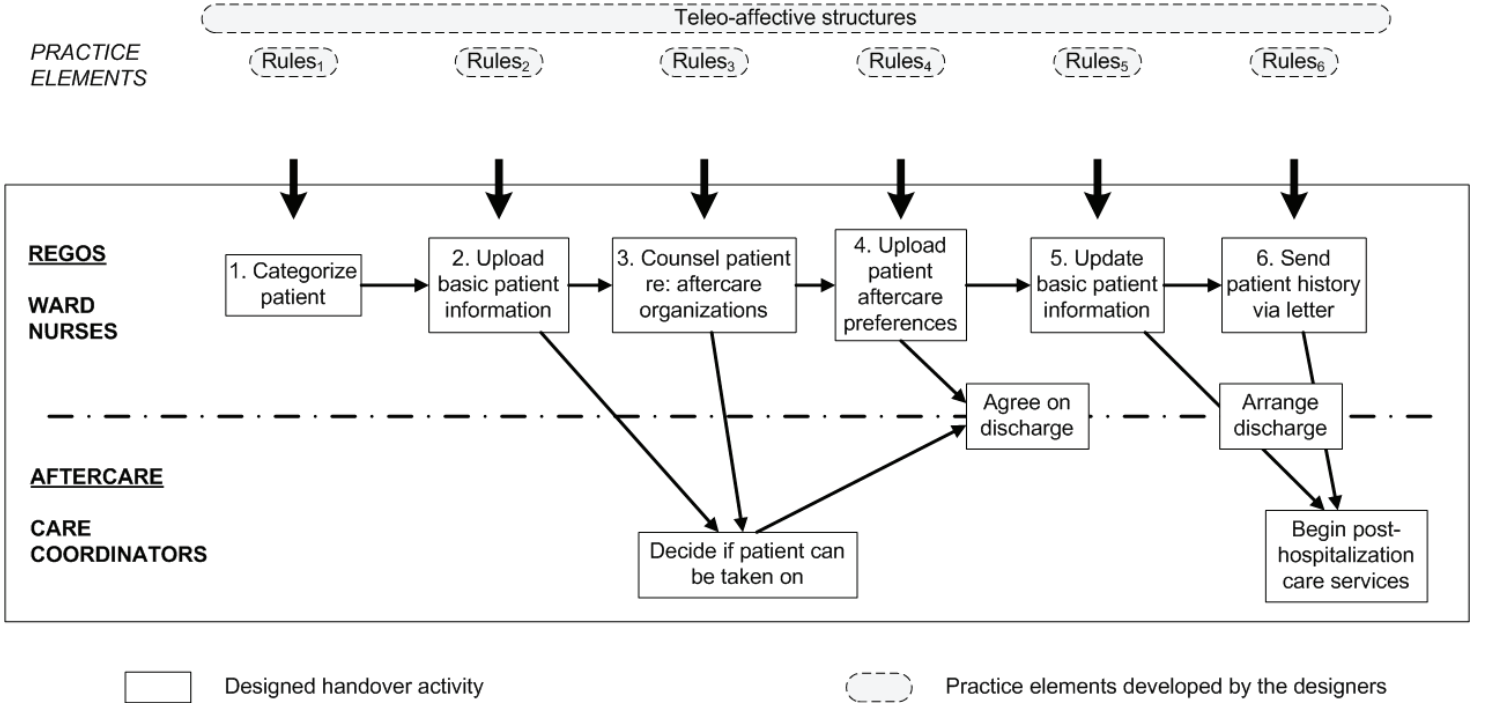


Figure 4.2. Designed patient handover practice and elements actually specified by the designers

In addition, no extra time was afforded the nurses to learn how to apply the handover procedure's rules. This was likely because of the designers' general expectation that – having already known the patients through taking care of them on the ward and discussing their cases in the multi-disciplinary meetings – the nurses would be able to take on the patient transfer duties without much additional effort. The designers saw these tasks as an extension of the support that the nurses should have already been offering the patients and their families – something the nurses had started doing less and less of over the years:

> *"Nurses have always had the responsibility to have that conversation – talk to the patient on the first day, explain to them how the handover worked, so they are less scared. So, it isn't good that they said 'the transfer department will do it'. That was never supposed to be that way." (Regos middle manager)*[23]

Acquiring the required *practical understandings* before the new handover procedure was introduced was even more problematic. Had the Regos ward nurses received transitional support from the transfer nurses, they would have developed quite similarly to legitimate peripheral participants, learning the trade from their "masters". In practice, the transfer nurses put up considerable resistance (even having to be issued a formal warning), offering the ward nurses grudging and intermittent support, at best. Moreover, it took a considerable amount of time for the nurses to become familiar with the different types of aftercare organizations in the region, and the services and facilities they offered. This was because the ward nurses had had no contact with the aftercare organizations before the implementation of the new patient handover procedure. Whenever a patient had to be discharged into the care of an aftercare organization, the ward nurses had simply forwarded the case to the transfer department, which had then made all the necessary arrangements. As a result, the ward nurses had no clear understanding of what the different types of aftercare organizations generally did for the patients, nor of the information they required in order to do so (nor, indeed, of the consequences of their lacking that information):

23 To clarify, the "conversation" mentioned in this quote refers to the ward nurses explaining what to expect regarding the handover process to the patients and their family (which, over time, had also been taken over by the transfer department). It does not imply that the ward nurses had, at any point, performed the patient handover themselves.

> *"The transfer department, they were social workers and they had an overview of the social map. And they knew, extensively, who should do what. The nurses have no understanding of the social map, know absolutely nothing about care intensity packages and that sort of thing. No one knows what an aftercare location is, no one knows where the patient should rehabilitate. So, the transfer desk had a lot of knowledge, practical knowledge, and the hospital removed that." (Bird care coordinator)*

Without this knowledge, patients were being allocated to the wrong type of organizations, which delayed the patient transfers, as the cycle of counselling a patient and inputting his/her information on the website would have to begin again after every wrong allocation:

> *"Right now, some departments are still struggling with it, because – well, you really have to learn all things about the nursing homes, you really have to think about – okay, which nursing home can hold a patient with just a hip fracture, which one can hold a patient that also has mental problems? And that's a real struggle for the nurses on the other wards." (Regos surgery ward leader)*

The Regos designers did not foresee the amount of time it would take the ward nurses to acquire this knowledge, nor the consequences of the nurses' lack of familiarity with the aftercare sector in general. I can extrapolate this from the fact that this type of knowledge was not explicitly mentioned in any of the Regos development plans, nor addressed by the Regos designers during interviews.

Overall, when the hospital started using its new handover procedure, most of the ward nurses knew nothing about the boundary spanning practice they were supposed to enact. As the designing ward leader mentioned:

> *"Well, we formulated that idea well, I think, but the problematic start was mainly because the ward nurses had to transfer patients before they had the right tools to do it." (Former Regos surgery ward leader, one of the Regos designers)*

Stage 1: Trying anything that works

As previously mentioned, the Regos ward nurses had no knowledge of either the patient handover itself (its rules and steps) or its associated information (patient categorization, the services provided by the different types of aftercare

organizations, etc.). The kick-off of the new handover procedure was thus met with great confusion. Nevertheless, the patients still had to be transferred – on the one hand to free up hospital beds, and on the other hand so that the aftercare partners would receive "clients" for their services. For that to happen in the absence of the required boundary spanning resources, the ward nurses began to contact the aftercare care coordinators by phone for help on transferring the patients:

> *"The first days were awful. It was an exceptional and undesirable situation, because I didn't know what to do – the ward didn't know. But the transfer nurses had left, so we tried to call the aftercare organization where the patient wanted to go, and asked them: hey, what should we do for you, what do you all need from us? (...) We just figured out what we had to do ourselves, so [our handovers] definitely wouldn't have won a beauty contest." (Regos cardiology ward leader)*

At this point in time, the ward nurses were not enacting a particular practice, judging by a number of accounts from different nurses on how the early patient and information transfers had been enacted. During interviews, the nurses referred to these transfers as "dealing with it" and "trying anything." This suggested that the ward nurses were not following any specific *rules*, and did not view their, or the care coordinators', actions as part of a recognizable pattern of activities (*practical understanding*). Although the nominated Regos and aftercare boundary spanners were indeed interacting, that interaction was actor driven rather than practice based, as it was highly reactive and depended on the care coordinators' requests and instructions. Moreover, the interactions were significantly different from the boundary spanning practicing patterns pre-specified by the Regos designers.

From a legitimate peripheral participation perspective, the ward nurses were now in a very early novice stage, being recognized as legitimate participants – by virtue of their nomination as boundary spanners – and having started to engage with the boundary spanning practice in question. In contrast to typical legitimate peripheral participation learning trajectories, they had no experts (nor more advanced fellow novices) to learn from in their community. Moreover, the practice they were struggling – and failing – to carry out had not previously been enacted as such, having only existed on paper until that moment (i.e. the designed version of the boundary spanning practice).

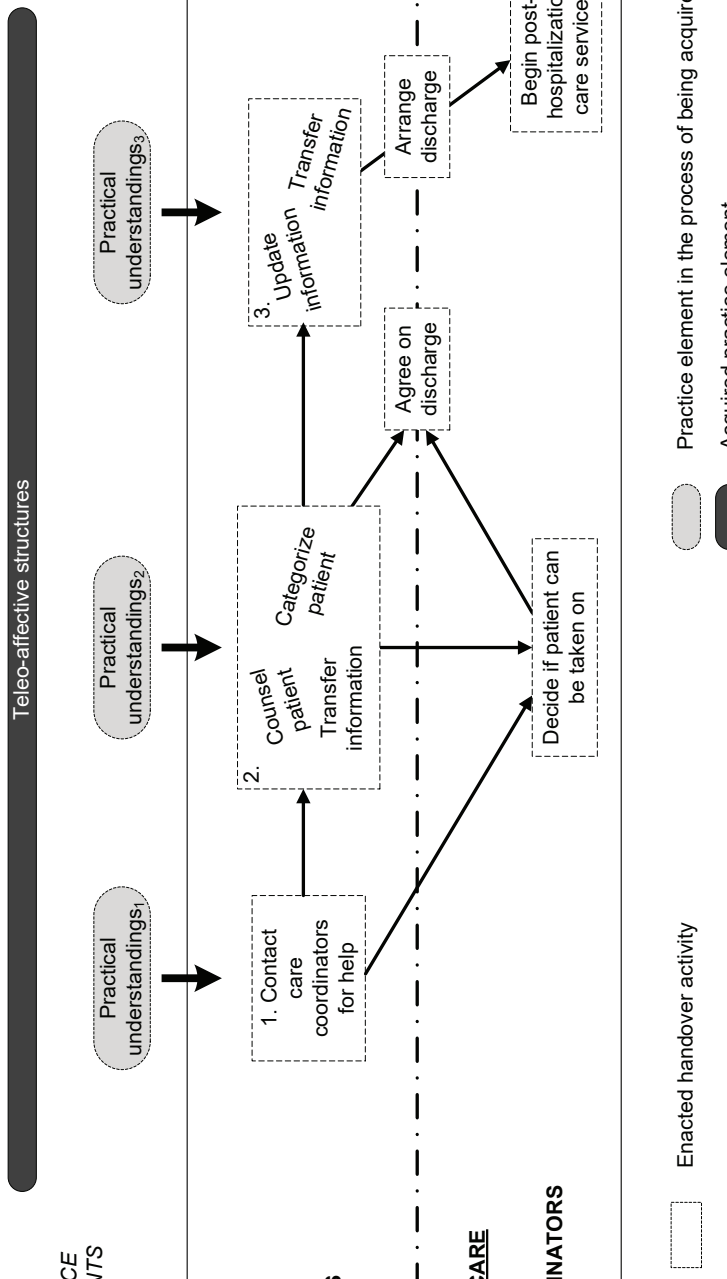


Figure 4.3. Enacted handover practice activities and elements at the end of Stage 1

In this period, the Regos ward nurses were struggling to understand two main issues: what they ultimately needed to achieve, and what they needed to provide the care coordinators with in order to do that. After repeatedly trying to transfer patients and interacting with the care coordinators, the nurses gained a progressively better understanding of their ultimate goal (an aspect of the *teleo-affective structures*), and began to recognize some of the steps they should follow (some of the *practical understandings*) (see Figure 4.3 for an overview of the Regos ward nurses' progress). As these aspects of the handover procedure became clearer, the nurses' struggle gradually moved towards a different focus, namely: enacting the handovers correctly and consistently. I identified this as the second stage in the ward nurses' learning trajectories, as addressed below.

Stage 2: So many case types, so little practice

If, in the first period, the Regos ward nurses were focused on ensuring that the patient and information handovers occurred at all – no matter how they were carried out – the second period was characterized by trying to enact them as pre-specified. The Regos nurses, now aware of their ultimate goal (an aspect of the *teleo-affective structures*) and, to some extent, of the actions they should take (some *practical understandings*), began to transfer the patients and their information through the secure website designed for this purpose. However, they continued to lack a full understanding of the rules and practical understandings required to do so according to the designed procedure. As depicted in Figure 4.4, this incomplete grasp of the rules and practical understandings led to several disruptions.

For instance, because the nurses lacked the practical understanding of recognizing patients' aftercare needs, they would either allocate them to the wrong care intensity package (disruption #1), or to the wrong type of aftercare organization altogether (disruption #2). As a result, after the nurses uploaded the patient information on the secure website, the aftercare organization in question would call the nurses in order to correct their patient profiling:

> *"Because of inexperience, they didn't check the patient's history well enough, or write down enough about the patient on [the secure website]. And then they'd offer the patient for rehabilitation; and we'd check the patient history section and go: 'Guys, you haven't done it right here', because the patient history showed the patient had dementia – and that wasn't mentioned at all on the*

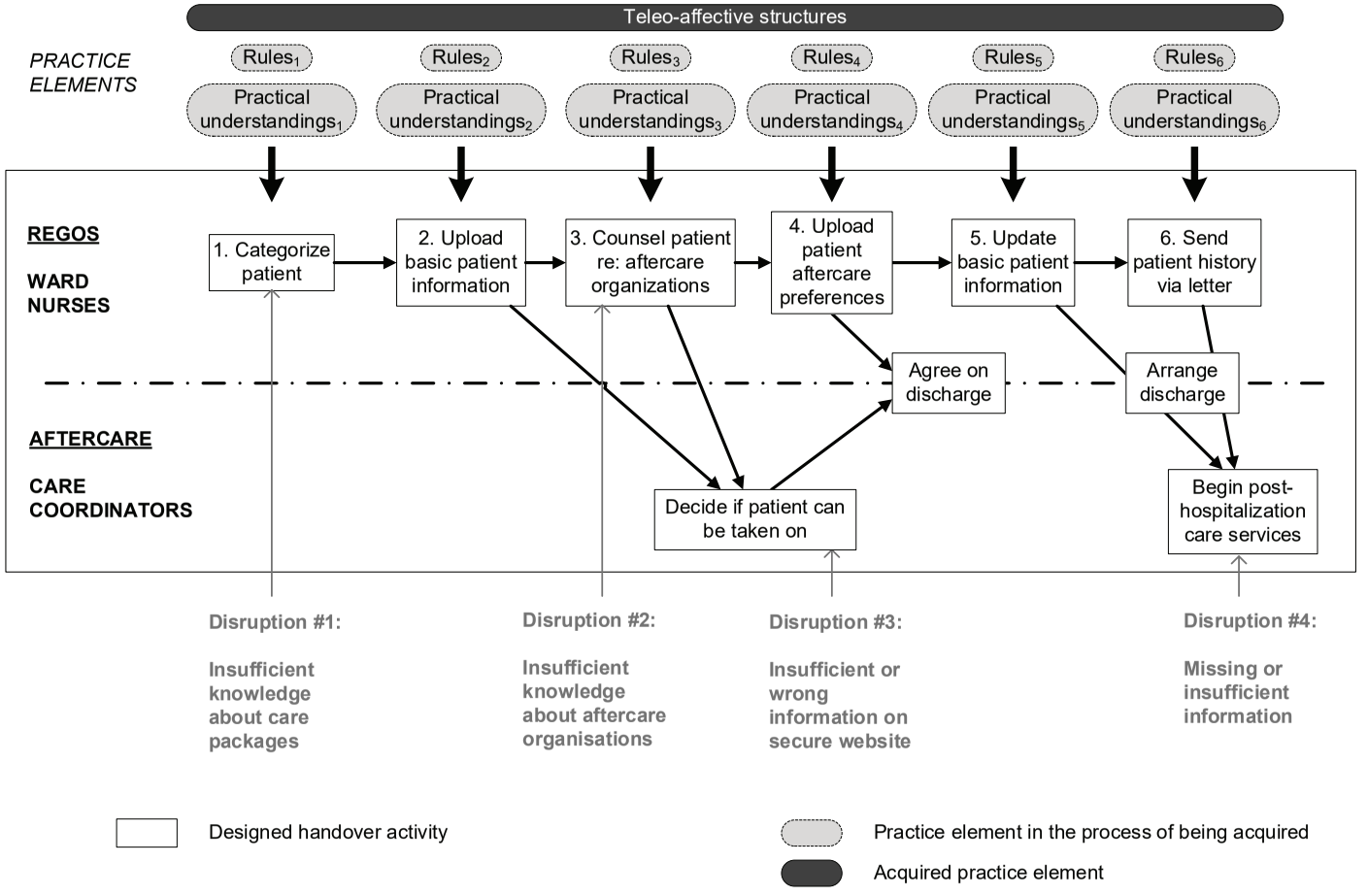


Figure 4.4. Disruptions to the designed handover practice

> *secure website – and these kinds of patients don't rehabilitate in aftercare organizations. So, those sorts of things. The hospital very often referred people wrongly in the period after the transfer people [were gone]. And then [you saw things] like: Well, this person is signed up for rehabilitation services, but he'd be better in psychogeriatrics. So, that happened often." (Bird care coordinator)*

A similar feedback moment would occur when the nurses allocated a patient to an aftercare organization that, while able to provide aftercare services for that patient category, could not do so for that particular patient – usually if the patient had multiple medical conditions. This type of disruption (disruption #2) resulted from a lack of practical understanding of the detailed services and facilities that an aftercare organization could provide:

> *"I think there were more problems in the beginning, because we didn't know if the nursing home had single or double rooms – because some patients need to be in single rooms. When you have a patient with a bacterium, they can't share a room with another patient. And in the beginning it was not clear what the homes offered when it came to the rooms." (Regos surgery ward nurse)*

Disruptions also occurred because the Regos ward nurses were unaware of the rules they needed to follow in order to enact the patient handover practice. Some had to do with the patient's categorization (disruption #1), while others had to do with the two patient information transfers (disruptions #3 and #4).

The former disruption concerned the fact that the care intensity packages were connected to specific aftercare services; for regulation- and insurance-related reasons, if the patients were categorized with the wrong package – even though they were allocated to the right organization (regarding both its type and its facilities) – the aftercare organization could not provide that patient with the relevant care. Thus, if a patient was improperly categorized by the Regos ward nurses – which the care coordinators could tell based on the patient information that had been uploaded on the secure website – the care coordinators would call back to ask the nurses to correct the categorization.

The latter type of disruption was related to insufficient patient information during either of the two crucial information transfer moments. For instance, during the first information transfer, the patient's entry was supposed to include their gender, a short description of their diagnosis, and a number of

attached documents: the patient's approval to share his/her information and history with the aftercare organization, forms filled in by the doctors and nurses attending the patient that detailed what measures were taken, and a medication list. Oftentimes, however, one or more of these documents would be missing. To make up for these issues, the care coordinators would, again, call the ward nurses:

> *"Because of the nurses' ignorance and their lack of knowledge, we're poorly informed about the clients who come in. Information about them is missing, incomplete, [the nurses] don't investigate enough – that's the ignorance of the nursing staff – and they must prepare us to receive the people who come here, and there's gaps everywhere." (Bird care coordinator)*

> *"The nurses didn't know how to put people on [the secure website], didn't know what exactly they had to arrange (…) In the end we also got complaints from the aftercare organizations where the patients went to, because they were missing things, they weren't happy with how they'd received the patients, the new information they were getting, so, it just didn't go well." (Regos cardiology ward leader)*

The feedback moments mentioned above did not stop at corrective action. Whether over the phone, during one-on-one informal conversations when they visited the hospital, or during formalized trainings, some care coordinators involved themselves further in the collaboration between the hospital and their aftercare organization by sharing their expertise with the Regos nurses. As the Regos surgery ward leader mentioned:

> *"There are wards here that are not good, and the care coordinators come to give advice. They give trainings too, and talk to the nurses."*

Of the three methods I mentioned above, the nurses found the trainings the least effective. Organized several months after the hospital began using the new handover practice, the trainings came in response to the Regos ward nurses' many handover errors. They were a joint effort of the Regos designers and some aftercare care coordinators who had begun to regularly visit the hospital wards (among which those from Ace and Bird), and consisted of a number of two- to

three-hour long sessions for which the ward nurses could sign up. Each session gave an overview of the information that needed to be uploaded on the secure website and/or sent along with the patient in a letter, as well as information on "*the care intensity packages, where you have to check if a patient is placed in another location, what the patient needs and what issues you have to pay attention to*" (Ace care coordinator). However, the trainings were ultimately unsuccessful, mainly because they were too little too late: not all the nurses attended them – either due to a lack of time, or because they had not been informed about them by their ward leaders. Moreover, a single session explaining or reminding nurses of the patient handover rules could not ensure that said rules were remembered, and did not improve the nurses' practical understandings of the activities they were supposed to carry out:

> *"So, in that year we talked a lot about culture, and some of the ward leaders followed all the things they needed to do. But some of the ward leaders didn't. We also arranged with a few aftercare organizations that we give trainings – and then we came to a department and there sat 4 of the 30 nurses that worked on that ward; (…) and they didn't tell their colleagues, and the ward leader didn't join the training." (Regos middle manager)*
>
> *"I think, ultimately, [one training per ward was not enough], but I also don't think it could have been done any other way, because the whole [nurse] team should be trained, in fact, that's 38 people. And they had to tell you all those seven possibilities for how people could be relocated, you had to be educated about them, remember them, come into contact with all of them and still remember- I don't think that would have been feasible anyway, to train people in a way that would have worked out in the end. (...) It's so difficult because so many people have so many steps to memorize, and when [one person] doesn't come into contact with them so often, that they remember at a given moment by heart what exactly they needed to do and everything that's necessary- that's too much, I think that's not feasible." (Regos cardiology ward leader)*

Instead, the nurses mainly benefited from repetition and breadth, regarding both patient case types and the corrective feedback they received through informal interactions with the care coordinators (also over the phone, but mainly in person):

> *"What Ace does is that they are very focused – they even visit some wards, and talk to the nurses on wards like 'Hey, this is what I can do for you, is it working out, do you need help', and it works quite well actually. And that's just- you know each other, you can find each other very easily. So, if a nurse thinks 'well could this patient reactivate or not, or should they better go home?', then they can also ask the person from Ace, like 'Hey, look at this a bit with me, think with me for a bit, what's best here.' And that works really well, I think." (Regos surgery ward leader)*

Through these interactions, the Regos ward nurses gained a progressively better grasp of the elements they were struggling with during the second stage – namely, rules and practical understandings. From a legitimate peripheral participation perspective, they were largely in line with the classic learning trajectory: by regularly engaging with the boundary spanning practice under the guidance of actors more knowledgeable than them, they were learning from their mistakes and the feedback they were receiving. However, in contrast to the typical legitimate peripheral participation model, the "more knowledgeable actors" guiding the ward nurses in their acquisition of relevant practice elements were not part of the community of practitioners enacting said practice.

Although both the Regos ward nurses and aftercare care coordinators contributed to the common boundary spanning activity, their respective activities were part of different communities. As I will address in more detail in the following sub-section, each community had their specific focus, and their specific view on patients. Thus, the Regos ward nurses' learning trajectory deviated from what is typical of legitimate peripheral participation. I should also note that not all care coordinators were equally prominent experts, nor did they play this role from the very beginning. Although all aftercare care coordinators gave the Regos ward nurses corrective feedback on their handovers, only three of them (among which those from Ace and Bird) became more involved, by helping the Regos designers to organize the trainings, and by visiting the hospital wards – at one point as part of a planned three-month evaluation project:

> *"[The Regos middle manager] asked three people to do this project, based on her good experiences with them. (...) Every day we visited the wards to ask if they had questions. (…) We were also there for the screening, [to see] how people were being prepared for surgery: were they asked, if, after they surgery, they could go*

> *straight home, or if they needed to [go to an aftercare facility] for a time? And then you can already report that on the ward once you have the information, but that was often not done. So, we did the screening, and also the [patient] admission moment. So, we go there every day, and ask if there are questions. We also ask if there are new admissions, or unplanned admissions, because those are always somewhat complicated. (...). So, we go there every day – this week will be the last time – and we list the questions, and we look over their shoulders: how do they do it, how do they tackle things." (Bird care coordinator)*

As a result of this more extensive involvement, the aftercare care coordinators became more visible, eventually occupying the classic legitimate peripheral participation role of experts for the nurses – both concerning the handover procedure itself, and the services and facilities of the different aftercare organizations in the region (see Figure 4.5 for an overview of the Regos ward nurses' and aftercare care coordinators' progress):

> *"And I have to say, I also call Maya from Wade[24], because she and a colleague [from Ace] had a project where they walked around the wards precisely in order to ask questions about aftercare issues. And that's how it finally happened that, yeah, you could talk to her, and she really tries to think along with you, and that's really nice – also for patients that aren't suited for her organization. She often knows really well what facilities are out there, who has what and where a patient can be in the right place – and that's something we all on this ward should, actually, know, but that's just almost impossible to do. So yes, I often consult her." (Regos neurology ward nurse)*

Gradually, the frequent interactions between the Regos ward nurses and these self-developed "experts" helped make the care coordinators appear more approachable. This, in turn, helped the Regos ward nurses to take a more proactive role in their patient handovers, as I will show in the following sub-section.

Stage 3: Proactivity and active interest

In their last learning stage, the Regos ward nurses began to experiment with different ways to enact the patient handover practice, some of them also

24 A fictitious name for one of Regos's aftercare partners who declined to participate in the study.

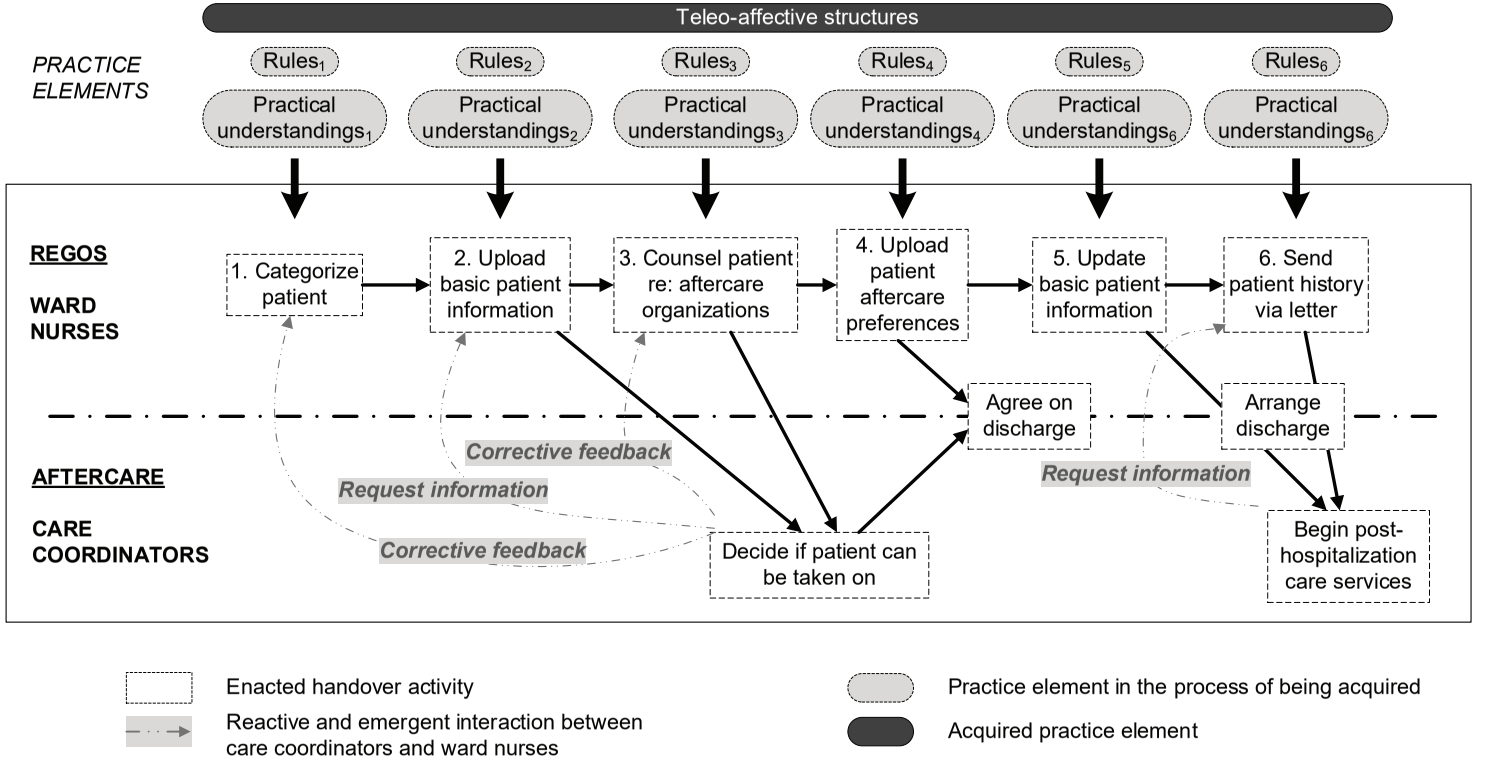


Figure 4.5. Enacted handover practice activities and elements at the end of Stage 2

achieving expertise by the end of my data collection. Viewed from Schatzki's practice perspective, some of the ward nurses also developed new *general understandings* by getting a progressively better grasp of the aftercare organizations' own activities. As I will show below, this had a significant impact on the nurses' development towards boundary spanners-in-practice.

The Regos ward nurses' experimentations mainly revolved around contacting the aftercare organizations outside the moments outlined by the designed handover procedure. For instance, I observed the nurses of the surgery and cardiology wards systematically contact aftercare facilities via the phone before allocating them a patient. At times, they also contacted the aftercare partners before counselling the patient on his or her possible aftercare options, or even before uploading their information on the secure website. In general, the ward nurses did so in order to check either if a particular aftercare organization had the available room to take a patient, or if they had the facilities that that particular patient required. They also called the aftercare organizations after allocating a patient on the secure website, usually if they felt that the organizations took too long to contact them back. In all three cases, checking with the aftercare facility in this non-designed way ensured that the handover occurred quicker and smoother, as it avoided potential delays of several days:

> *"If we are in doubt [whether that's a good spot for the patient] we'll call the aftercare organization right away, or as soon as we put the patient on [the secure website]; then we call right away, like 'Hey, can we apply for your organizations in this case?', because otherwise it makes no sense. So, we first discuss it with them." (Regos cardiology ward nurse)*
>
> *"And usually, if [the care coordinator who's currently visiting the hospital] already knows about the patient, that he'll be applying for their organization, then you can already discuss the patient with them. But often we give them a little call again, either the same day or the next one. And yeah, if there's a place, then a patient can just be quickly relocated." (Regos neurology ward nurse)*
>
> *"If I have patients where I doubt if they're right for the aftercare organization, then I always discuss them over the phone (...) [The Ace care coordinator] arranges the placement. So, if I have a straightforward patient that I know is eligible for rehabilitation, then we put him on [the secure website], on the*

> *waiting list, [the Ace care coordinator] takes him from there and adds him to her organization. When I doubt if the patient is suitable, then I contact [the aftercare doctor] first, and then I call [the aftercare care coordinator] and say: 'This is a doubtful case, I'm consulting [the doctor], he may come under such and such conditions.'" (Regos pulmonary disease ward nurse)*
>
> *"It also happens the other way around, that the ward leaders or nurses call me, like 'Hey, can I discuss something with you for a bit, I have Mrs. X here, can she rehabilitate? Does she have to go to a [nursing] home? Should she go to her home? Can you figure this out with me?' So, they also ask help from us the other way around, and that's also very pleasant. Very nice. [This happens] when they have doubts about what to do with the patient, they call one of us and discuss it, and then they say 'I'll put the patient on [the secure website]' and then we get the patient from there, with his/her information." (Bird care coordinator)*

Thus, in this period, the ward nurses began to leverage their informal interactions with the care coordinators in order to speed up the patient handovers. While, initially, the Regos ward nurses had reached out to the aftercare coordinators because of their general inexperience, throughout this third period, they began to do so for more purposeful reasons.

These experimentations were not, in and of themselves, a mark of expertise – see, for instance, the interview excerpts of the Regos neurology ward nurse, who admitted both to proactively consulting the aftercare coordinators, and to still struggling with the different facilities offered by the aftercare organizations in the region. In fact, towards the end of my data collection, the Regos ward nurses were still observed or reported to have doubts regarding patient categorizations or the aftercare organizations' facilities and services; they also provided the aftercare organizations with insufficient information. Nevertheless, these mistakes occurred less often than they had used to, and tended to have less to do with lack of knowledge or inexperience, and more with the complexity of patient cases or the characteristics of the aftercare facilities. Thus, while, in the previous stage, the ward nurses were novices struggling to grasp the handover practice's rules or practical understandings, in this stage they were focused on perfecting this knowledge – some being more successful than others.

I would argue that the mistakes some of the nurses made – or their missing drive to eliminate them – came at least partly from not understanding the patient handover flow from the care coordinators' perspective, or what it meant for the patients to recuperate under the care of an aftercare organization. For instance, the aftercare employees saw the handover as a moment that should be smoothly experienced by the patient, an intermediate step in a continuing patient care flow. Most of the ward nurses, instead, viewed that moment as the end of the patient's dealing with the hospital – and, essentially, the end of their work and involvement in the case. As a result, the Regos ward nurses did not consider the implications of insufficient information about the patient's history (either for the aftercare employees' work, or for the patient). There was therefore a mismatch between the handover-related *general understandings* of the Regos ward nurses and those of the aftercare care coordinators. Since this mismatch also impacted the nurses' ability to properly carry out the patient handovers, I would also argue that the Regos ward nurses in question had yet to acquire the general understandings needed to enact the designed boundary spanning practice (Figure 4.6).

This mismatch in general understandings varied from one ward to another, just as the nurses' knowledge regarding the work done by aftercare organizations varied. Among the four nurse wards I examined, the pulmonary disease and cardiology ward nurses had never visited an aftercare organization. The neurology ward nurses had done so in the beginning, in an exchange-of-experience drive, but had not done so again. The surgery ward nurses were a contrasting example: shortly after the hospital kicked off its new patient handover procedure, they started to systematically visit the aftercare organizations in the region, and continued to do so well into the network's first year. These regular visits impacted and improved their understanding of the different types of aftercare organizations and their characteristics, thus helping them to acquire a *practical understanding* of the patient handover practice. Beyond this, the visits helped them to develop a sense of how aftercare organizations dealt with a patient, and thus, what would be required of them in order to better meet the aftercare coordinators' needs and to ensure a smoother transition for the patient:

> *"Now we know what the nursing homes have to offer. And that makes it easy for the patients, because you can spell out a story for them. They expect something*

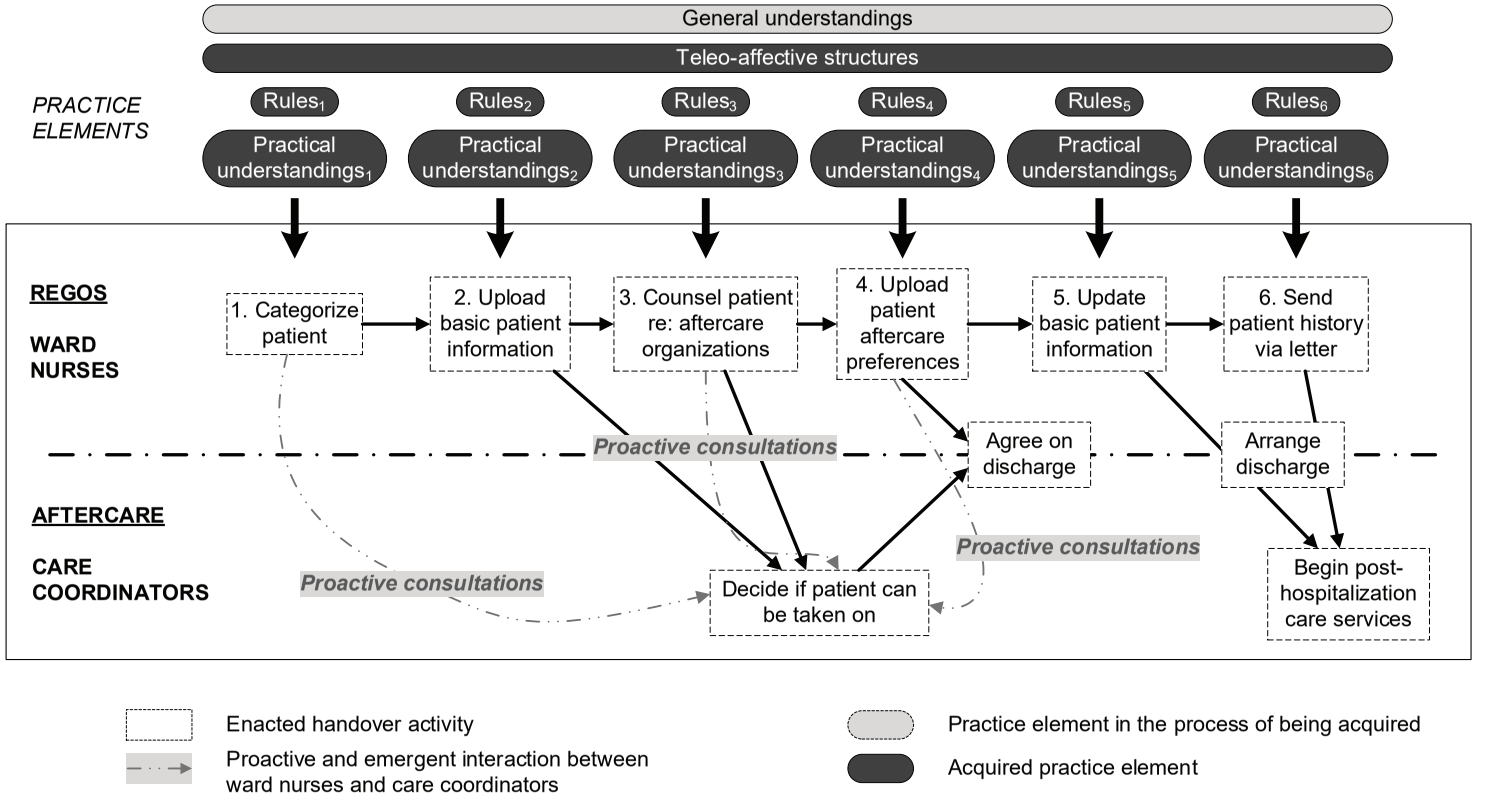


Figure 4.6. Enacted handover practice activities and elements at the end of Stage 3

> *of the nursing home, and you can tell what's there. And I think that's one of the success factors on this ward." (Regos surgery ward nurse)*

In so doing, they developed new *general understandings*, more suited to the handover procedure and their inter-organizational boundary spanning role.

According to my observations and interviews, the surgery ward nurses were the only ones who eventually achieved mastery of the patient handover practice by the end of my data collection period. More than just trying to enact a correct handover, they were concerned with ensuring that it occurred smoothly, despite the complexity of patient cases. The surgery ward nurses' expertise could also be noted from my observation of intra-ward learning; specifically, I observed a new dedicated nurse learning to enact a particular type of patient transfer from her already-expert-level colleague. In contrast, the dedicated nurses of the cardiology ward – arguably the next best developed ward regarding handover accuracy – appeared more like fellow novices learning from each other. This suggests that developing *general understandings* that match those of one's partner may be the crucial last step to achieving successful (inter-organizational) boundary spanning.

Another notable development during this period was the wards' emergent orientation towards a more centralized boundary spanning mode. For instance, the cardiology ward had initially nominated all its nurses to enact patient handovers. After a very problematic start, they reorganized their handovers to be carried out by two dedicated nurses, at the recommendation of the Regos middle manager. The neurology and pulmonary disease wards similarly nominated all their nurses. Nevertheless, the pulmonary disease ward featured one particular nurse that focused on aftercare tasks, having formed closer ties with the aftercare field during her past work experience. Although all nurses enacted patient handovers, she was recognized as a go-to person for aftercare issues. In the case of the neurology ward, the choice to nominate all nurses for boundary spanning duties had been intentional: the ward leader wanted to avoid the delays that might occur if the hypothetical central nurse responsible for patient handovers were unavailable. Over time, however, the breadth of patient cases and aftercare facilities became apparent, and the ward began to train two nurses in more depth regarding aftercare duties.

A certain degree of centralization also developed at the level of the hospital, as the more experienced dedicated nurse of the surgery ward took over the aftercare duties of the former surgery ward leader (who had also been one

of the Regos designers, and the Regos middle manager's right hand woman). As a result, some of the wards began to view her as a central contact person who could help answer questions or make suggestions.[25] While this did not entirely solve the wards' centralization needs – for instance, actors from three different wards expressed a desire for someone who would place their complex patients for them – it did indicate the potential emergence of a hospital-wide patient handover community.

The emerging centralization of boundary spanning duties gave similar indications of potential ward-specific handover communities. Whether they were novices (cardiology, neurology, pulmonary disease wards) or experts (surgery ward), the Regos ward nurses could support each other to a higher degree at this point in their learning trajectory. This would be especially helpful as the previously mentioned care coordinators' evaluation project came to an end, and they began to visit the hospital wards to a lesser degree. It is therefore likely that, as my intra-ward learning example from the surgery ward already suggested, newcomers at this stage would no longer need to discover the handover practice's purpose, rules, or understandings on their own or (mainly) from the feedback of the care coordinators. Instead, they would be able to also rely on their own ward- or hospital-level community members. By then, an understanding of what the handover practice elements should be (if not the full ability to enact them, as such) would have been acquired at the ward level. As a result, new generations of ward nurses nominated to enact the practice would more closely follow the classic legitimate peripheral participation learning trajectory: learning from their interactions with their more experienced colleagues to an equal, if not higher, degree than from their inter-organizational counterparts.

Discussion and conclusions

Inter-organizational boundary spanning: Skill development through practice acquisition

My study took a new approach to studying the development of inter-

25 I should note that, in the early implementation phases of the designed patient handover practice, the Regos ward leader who had been involved in designing the practice had also made herself available should the ward leaders or nurses have any questions on carrying out the new procedure. She and the surgery ward nurse were therefore offering the same type of support to their colleagues. The difference between the two was that the designing ward leader's support came before her colleagues knew how to use it. Moreover, awareness of her support seemed to be fragmented, the Regos actors I interviewed being more aware of the latter central contact point.

organizational collaboration by examining how nominated boundary spanners become boundary spanners-in-practice in the context of a Dutch healthcare network. I analysed this process of becoming by integrating two theoretical lenses: legitimate peripheral participation (Lave & Wenger, 1991) and Schatzki's (2002, 2012) practice perspective. Thus, in the previous section, I presented the nominated boundary spanners' skill development and practice acquisition in parallel. I identified three developmental stages, each with their specific focus regarding both skill development via legitimate peripheral participation and practice acquisition as framed according to Schatzki's practice perspective. In the first stage, the Regos ward nurses – as fresh novices – were mainly concerned with understanding the ultimate objective of the practice they had to enact (the handover practice's *teleo-affective structures*), as well as its basic steps (some *practical understandings*). In the second stage, the Regos ward nurses – as more experienced novices – were focused on understanding the *rules* of the handover practice, and deepening their *practical understanding* of how to apply them. Finally, in the third stage, they began to adapt their own enactment of the practice and choose which rules to bend or break. Some ward nurses also leveraged their understanding of their collaborative partners' specific needs and ways of working (thus developing a new *general understanding* of the handover practice) to ensure smooth patient handovers. In so doing, they truly became experts at enacting the practice.

I should note that my use of numbered stages does not mean to imply that the Regos ward nurses were only grappling with specific practice elements in specific stages; instead, the stages are indicative of the novices' learning focus. For instance, the surgery ward nurses had likely been developing their handover-relevant general understandings well before the third stage, ever since beginning to visit the aftercare organizations in the region. However, they had been particularly focused on grasping the practice's rules and practical understandings at the time, and their attitudes towards the handover practice only became significantly relevant once this had been achieved. That being said, this general progression from grasping the teleo-affective structures to developing new general understandings was consistent across the four wards I examined, even though the wards – and indeed, the nurses themselves – did not enter these periods at the same time. It is likely, then, that the progression I identified in the study also holds for other practice acquisition processes – at the very least, in contexts similar to that of my case.

On that latter note, let me reflect on the specificities of my case, and their implications for my findings. First, my case is distinctive for the fact that it could be seen both as learning to enact a new boundary spanning practice (from the ward nurses' perspective) and as training new boundary spanners in the context of a pre-existing boundary spanning relationship (from the care coordinators' perspective). Second, it is distinctive for being a case of transactive boundary spanning (Levina & Vaast, 2013) – namely, transferring and translating knowledge (in my case, patient information and aftercare preferences) – across syntactic (differences in labelling) or semantic boundaries (differences in meaning) (Carlile, 2004). Furthermore, the transfer/translation of information was predominantly unidirectional, from one community (the ward nurses) to the other (the care coordinators). How did all these contextual factors impact the nominated boundary spanners' development, and what differences, if any, might other contexts generate?

For instance, because the boundary spanning relationship was pre-existing from the perspective of the aftercare care coordinators, the care coordinators expected that they would receive certain information from the ward nurses, at certain moments, and in certain ways. The care coordinators consistently offered corrective feedback whenever the ward nurses were not complying with these expectations. They did so when the ward nurses had no knowledge of the handover practice, and continued to do so when they neared expert status. Thus, in this context, the care coordinators' feedback kept the Regos ward nurses' activities in line with the designed procedure – and thus, also kept the nurses on the course to becoming effective boundary spanners-in-practice. Given that the Regos ward nurses had had no intra-community training before starting to enact the boundary spanning practice, the aftercare care coordinators' needs and expectations may have been the deciding factor in the ward nurses' acquisition of the practice.

With no pre-existing expectations driving the practice acquisition process, it is likely that the boundary spanning practice would develop in a more emergent fashion. I base this latter assumption on Schatzki's (2012) view that, while practitioners' actions are determined by their goals and motivations, they nevertheless remain open until the practitioners act. Thus, even though both parties are driven by a particular boundary spanning goal (teleo-affective structures), how they actually reach that goal cannot be entirely dictated by a pre-specified boundary spanning design. In this context, the lack of pre-

existing expectations from one or both boundary spanning parties lowers the normativity that would keep the boundary spanners' actions in line with pre-existing designs. For instance, with a lesser focus on meeting the rules, and both parties trying to figure out what is expected of them, the nominated boundary spanners might prioritize aligning their general understandings. They might focus on coming together to understand how each respective party "does things around here", placing more emphasis on getting things done in a way that suits both communities rather than (re)producing a predefined array of activities. I may therefore assume that boundary spanners would be more likely to adopt and recognize emergent boundary spanning activities, and leave (elements of) the original design by the wayside.

In both of the contexts mentioned above (with and without pre-existing expectations from one community's boundary spanners), effective boundary spanning practices and skills would only successfully develop through the *interaction* of boundary spanning actors. As my findings and analysis have shown, designing the boundary spanning practice ahead of time will not, on its own, be sufficient for the communities to achieve effective boundary spanning.

Continuing my line of reasoning, how would my findings and implications hold up in a transformative rather than transactive boundary spanning context (Levina & Vaast, 2013)? In such a context, boundary spanning actors would be focusing on negotiating and challenging the existing knowledge and relations, potentially crossing pragmatic boundaries (generated by differences in interests) (Carlile, 2004). Here, I may assume that becoming a boundary spanner in-practice would occur in a decidedly emergent fashion, as this boundary spanning mode by definition implies challenging the actors' existing expectations. There would then be less opportunity or need to design boundary spanning practices ahead of time. In this case, the nominated boundary spanners may first focus on jointly aligning or developing teleo-affective structures and general understandings. The rules to the practice might emerge as the boundary spanners interact, and only be acknowledged as such once the boundary spanning practice is considered "successful", and new boundary spanners are introduced – who would then have to be introduced *into* the practice. From that point on, if the boundary spanners' interactions become transactive in nature, the nominated boundary spanners' development may continue in a fashion similar to the one addressed in my study.

Finally, let me also reflect on my findings from a legitimate peripheral participation perspective. My case deviated from typical legitimate peripheral

participation trajectories, in that novices learned to enact a practice not from intra-community experts, but from actors outside their community. Nevertheless, the main tenets of Lave and Wenger's (1991) apprenticeship process still held: the Regos ward nurses still learned by immersing themselves in and engaging with the handover practice, and became more skilled through feedback and experimentation. This suggests that a legitimate peripheral participation apprenticeship process also applies in inter-organizational or inter-community settings, albeit with the difference that the feedback is (also) generated from outside the practice community in question.

That being said, how would this translate to other settings? As previously mentioned, my case was distinctive for having one party familiar with the inter-organizational practice in question (the aftercare care coordinators), and the other unfamiliar with it (the Regos ward nurses). Moreover, the familiar party functioned both as corrective feedback-givers and as experts, seeing as the learning party had no intra-community experts to fall back on. In this case, a different setting[26] would be one where the ward nurses do learn from intra-community experts. An example of such a setting would be the scenario I described at the end of the findings section, where the next iteration of Regos ward nurses would learn how to carry out the handover practice from the "veteran" ward nurses whose skill development I studied in my case. Here too, however, the aftercare care coordinators would request information and offer corrective feedback, as they would still be the ones to discover and deal with the ward nurses' individual handover errors. Thus, in this new context, the roles of the expert and that of the corrective feedback-giver would be carried out by different actors – in contrast with the typical legitimate peripheral participation model, where both roles are carried out by the experts.

Seen from this perspective, the new, inter-community type of legitimate peripheral participation I identified can be described as an apprenticeship process where novices learn to enact a practice both from intra-community experts and inter-community boundary spanners. In this process, the novices' learning trajectories would differ according to the intra- and inter-community actors' degrees of involvement. At one extreme, the intra-community experts are absent, and the novices' learning trajectory proceeds as described in my case. At the other extreme, both experts and feedback-givers are involved in the

26 The different setting I envision here still features transactive boundary spanning (Levina & Vaast, 2013), as the example is used to reflect on the possible variations of an apprenticeship process and the passing on of existing practices; I do not focus here on the creation of new practices, which would be more the case for transformative boundary spanning (Levina & Vaast, 2013).

novices' learning trajectory, and their roles may overlap to various degrees. For instance, if the intra-community experts monitor the novices' work, they may also function as feedback-givers. Similarly, if the feedback-givers from outside the community are involved in the boundary spanning practice's design and implementation, they may gain enough understanding of the novices' activities to also function as experts.

Contributions to theory and practice

Having used a multi-layered theoretical framework, my study of how nominated boundary spanners develop into boundary spanners-in-practice brings new insights to a number of research streams – most significantly to the boundary spanning debate. Previous studies have suggested that actors become boundary spanners-in-practice by participating in practices relevant to the communities they are attempting to span (Levina & Vaast, 2005), thereby also developing new practices (Levina & Vaast, 2006, 2008, 2013). These studies approached the process of becoming by focusing on the resources necessary for the actors to participate in and develop these practices – namely, legitimacy and interest (Levina & Vaast, 2005). My study's first contribution to the field is showing *how* these legitimate and interested boundary spanners progressively develop into effective ones, by indicating the nominated actors' successive points of focus in their development trajectory – goals, rules and know-how, and general attitudes towards spanning said boundaries. Second, by purposely examining both the design and the acquisition of a boundary spanning practice, I show that the successful development of boundary spanners-in practice does not rest solely on the shoulders of the nominated boundary spanners. Instead, it also relies on the organizational actors that create and implement the structures within which the boundary spanners develop.

My study also contributes to the practice studies on collaboration in a number of ways. Conceptually, my integrated use of two practice perspectives answers a recent call for practice theory studies that use a toolkit approach to examine social processes (Nicolini, 2012). My study thus provides a possible template for leveraging two conceptual approaches to study one social or organizational issue. Empirically, I contribute in turn to each practice perspective. I show how the legitimate peripheral participation model fares in collaborative cross-community settings, by uncovering an apprenticeship process where novices 1) consistently learn from experts *outside* their own community, and

2) only achieve expertise when developing a general understanding of their boundary spanning that is aligned with that of their collaborative partners. Relevant to this new type of legitimate peripheral participation, I distinguished between the roles of the feedback-giver (in my context, the cross-community boundary spanner) and the expert. This distinction reinforces the cross-community version of legitimate peripheral participation, and enables future research to test its potentially wider expansion: learning from experts outside one's community how to interact with a third, different community. Conversely, my examination of the practice acquisition process from the perspective of learning suggested that learning to enact a new practice might involve acquiring and developing its relevant elements in a particular order. In so doing, my study contributes to the slowly growing body of empirical studies that make use of Schatzki's practice ontology. More specifically, it provides the first empirical insights into two areas of investigation outlined in his more recent writings (Schatzki, 2012): how practices can be designed or altered, and how to prepare actors to acquire them.

Finally, my study contributes to the inter-organizational relations literature by exploring how partners align operations in practice – a topic that has not been explored in depth in the field (Gulati et al., 2012). My study provides new insights into the development of both boundary spanning skills and practices, which, to the best of my knowledge, have not previously been investigated in an inter-organizational context. Moreover, I showed that the successful development of inter-organizational collaboration in practice relies significantly on the involvement of both boundary spanning parties. By taking a dynamic view on this latter issue, my study adds to the current insights on post-formation dynamics (Reuer et al., 2002).

The practical relevance of my findings lies in the lessons that can be drawn in terms of designing and implementing inter-organizational collaboration, in the healthcare sector and beyond. Patient handovers have been a widely researched topic in the healthcare management literature, yet the majority of studies have been conducted at the intra-organizational level (Manser & Foster, 2011) or have concerned themselves with evaluating interventions and outlining barriers and facilitators to the enactment of successful handovers (Riesenberg, Leisch, & Cunningham, 2010). By examining the design and acquisition of an inter-organizational patient handover practice, my study offers a rare processual approach into this crucial area of patient care. Beyond this, I also provide a

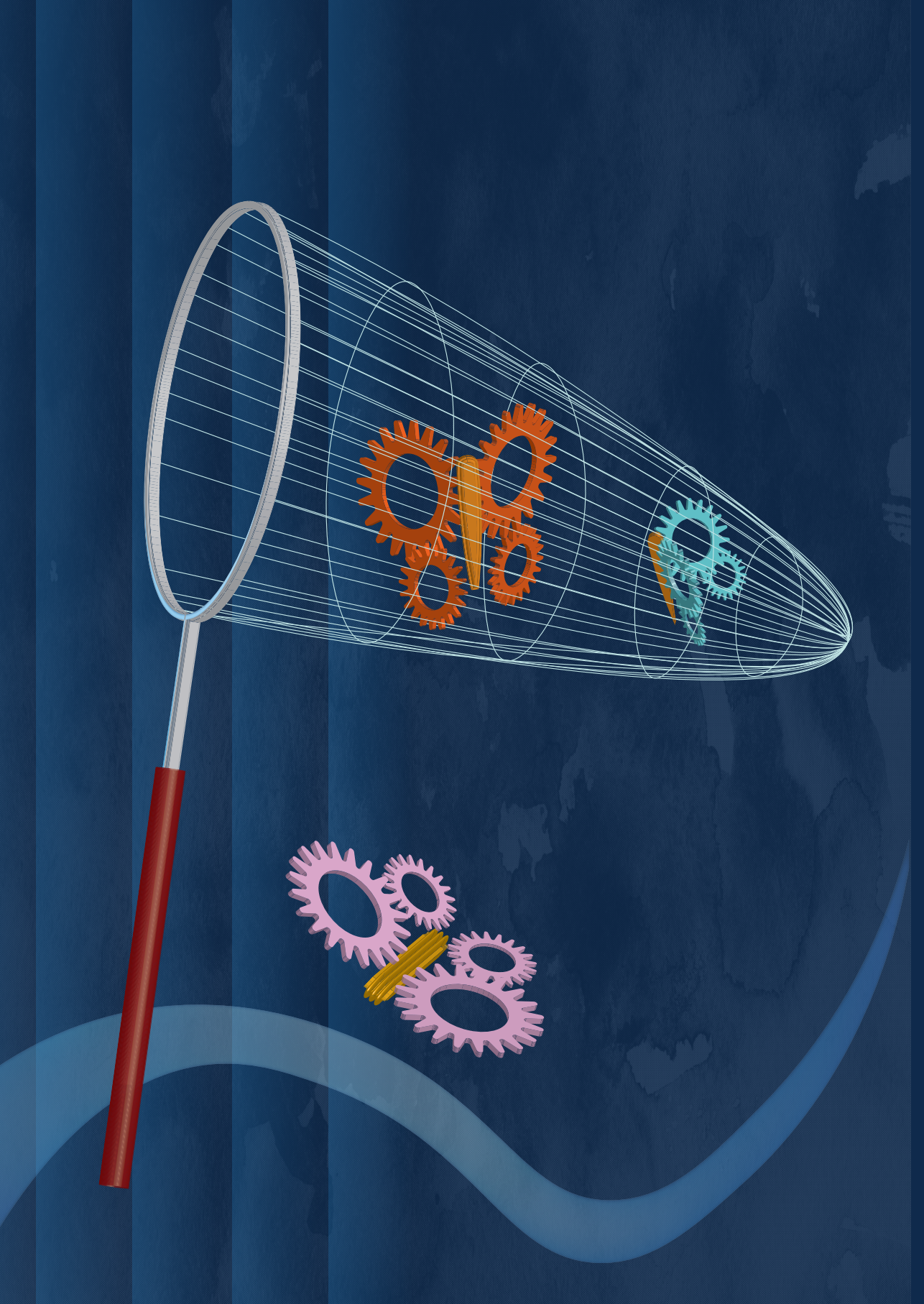
number of practical insights to managers in general regarding the design and implementation of inter-organizational practices. For instance, I have shown that the Regos ward nurses' problematic start resulted from the designers' incorrect estimation of the elements and resources that the ward nurses required in order to learn how to enact the practice. More specifically, while the designed practice was ultimately acquired, its expert – or even adequate – enactment was only possible through the acquisition or development of elements that the Regos designers had neither pre-specified, nor given any special attention to during the implementation process – namely, *practical* and *general understandings*. Based on the ward nurses' struggles regarding these elements, I would encourage prospective practice or process designers to: 1) involve the nominated boundary spanners in the design process, in order to understand and take into account their design's implications on both communities; 2) conduct early evaluations to determine whether the nominated boundary spanners have the resources needed to acquire and enact the designed practices; and 3) take timely steps to provide any missing resources, in collaboration with the relevant boundary spanners.

Limitations and suggestions for future research

My study's main limitation stems from my predominantly retrospective examination of the inter-organizational collaboration. I made up for not having observed how the nurses acquired or developed the relevant practice elements by ensuring that I had a clear understanding of the differences between the inter-organizational collaboration as it was designed, and the practices that were actually enacted when patients and/or their information were transferred. I did so by prompting the respondents to describe how the patient handover should be carried out and how it was carried out in practice, by examining relevant documents (such as development plans and evaluation reports), and by conducting observations in several Regos wards, in order to ensure that I had a good understanding of the boundary spanning practice in-use. Nevertheless, this limited my examination of the progressive acquisition or development of practice elements. For instance, when studying the acquisition of the handover practice's teleo-affective structures, I could not reliably track their affective aspects. Since Schatzki sometimes focuses more on the teleology of this element than its affective side (Nama & Lowe, 2014), my incomplete insight into the element does not undermine my findings. However, future studies with a longitudinal

design – more likely to capture the full progression of all four elements – would likely enrich my present conclusions.

Other limitations are typical of case study research, and concern the generalizability of my findings. As already outlined in the previous section, I have examined the development of nominated boundary spanners into boundary spanners-in-practice in an inter-organizational, transactive, unidirectional collaboration in the Dutch healthcare sector, where the boundary spanning practice in question had been pre-designed but insufficiently implemented. My discussion of the findings has already acknowledged a number of these boundary conditions, and made a number of suggestions regarding my findings' applicability in different contexts. That being said, some contextual differences are more difficult to estimate than others, therefore requiring further research. For instance, while I could generally assume that, in transformative boundary spanning settings (Levina & Vaast, 2013), the nominated boundary spanners would develop towards boundary spanners-in-practice in a more emergent fashion, my assumptions can go little further than that. This is especially because negotiating and challenging existing relations would likely require different skills than transferring and translating knowledge (Williams, 2002). This would imply that the makings of an effective boundary spanner in-practice would also differ from those associated with the empirical context I examined. In a similar way, future research should investigate whether and how my insights translate to other sectors and/or countries. For example, although the Regos ward nurses and aftercare care coordinators came from different healthcare professions, the actors nevertheless had enough commonalities to only require a relatively straightforward transfer and translation of knowledge when spanning the boundaries between them. Having to span boundaries between different industries or between significantly different areas of a particular industry might prove more complex.



Chapter 5

General conclusions

My dissertation's research objective was to open the black box of inter-organizational collaboration by delivering new insights into processes and practices involved in setting up, implementing, and enacting it.

I explored these aspects by framing inter-organizational collaboration as the result of boundary spanning work, and focusing on three key concepts: the knowledge boundaries between the collaborating parties, the boundary spanners that navigated these boundaries, and the boundary objects they (sometimes) used to navigate them. Using these concepts, I studied the development of two healthcare networks in the Netherlands, from a progressively stronger practice perspective. In particular, rather than examine barriers and facilitators to the successful outcome of inter-organizational collaboration – whether individual, structural, or process-related – I chose to look into the inner workings of its development.

In the following sections, I first summarize the findings of my three empirical studies, then synthesize them to articulate my dissertation's contributions to literature from three different perspectives: inter-organizational collaboration, boundary spanning, and healthcare management. I then address the practical implications of my findings. Finally, I reflect on my methodological choices, and end this chapter and dissertation with suggestions for future research.

What have we learned? A summary of this dissertation's findings

Each of my dissertation's studies focused, in turn, on one particular aspect of inter-organizational collaboration and its development: Chapter 2 studied the interplay between inter- and intra-organizational processes; Chapter 3 explored the development of inter-organizational strategy, focusing by the end on both its articulation and its issue selling; Chapter 4 examined the implementation and enactment of pre-designed inter-organizational operations. Apart from providing unique insights into key inter-organizational processes, my dissertation also explored these processes side by side, thus allowing for reflections on how they interlock, and how they develop at the intersection of multiple communities. After summarizing each chapter's findings below, I will reflect on how my approach to inter-organizational collaboration helped me reach my dissertation's research objective.

The interplay between inter- and intra-organizational processes: The key role of multilateral boundary spanners

The first step towards reaching my objective was my study of both inter- and intra-organizational collaboration processes, with a particular focus on how these processes interacted. In Chapter 2, I framed the inter- and intra-organizational developments of one healthcare network's set-up and implementation as a series of negotiations, commitments, and executions (Ring & van de Ven, 1994). In particular, I studied how boundary spanners navigated hierarchical and inter-organizational boundaries when carrying out these processes.

Based on data collected from semi-structured interviews and documents, I found that certain boundary spanners – whom I referred to as multilateral – were involved in both inter- and intra-organizational developments, and that this dual involvement generated a virtuous cycle in the network's development. More specifically, their involvement in one area (e.g. inter-organizational) was positively reinforced by the knowhow and information they had gained in another area (intra-organizational), and so on. In contrast, the boundary spanners who were not multilaterally involved were vulnerable to implementation problems that resulted from insufficient preparation in one of the two areas. This led me to propose multilateral boundary spanning as a key mechanism for the set-up and implementation of inter-organizational collaboration.

I also found that the healthcare network's development featured two nested cycles of negotiations, commitments and executions (Ring & van de Ven, 1994): one dedicated to setting up the network's inter-organizational agreements, and the other dedicated to their operational implementation and enactment. Each cycle featured a key multilateral boundary spanner: the first cycle developed mainly through the actions of the hospital's middle manager (strategic leader), while the second progressively rested on the shoulders of an operational-level actor (operational leader).

The articulation and issue selling of inter-organizational strategy: Boundary spanning across knowledge boundaries

In Chapter 3, I examined the inter-organizational strategizing process of the second healthcare network, by looking at how key actors interacted across a variety of boundaries (inter-organizational, professional, or hierarchical). I framed these boundaries as knowledge boundaries (syntactic, semantic, pragmatic (Carlile, 2002, 2004)), and the ways in which they were navigated

as boundary spanning (via boundary objects (Star & Griesemer, 1989) and boundary spanners (Williams, 2002)). Based mainly on an extensive array of textual artefacts, I developed two key insights about the network's inter-organizational strategizing process.

First, I showed that the key actors strategized in different ways depending on the knowledge boundaries between them. When they already shared the same goals and understood each other's dependencies and differences (i.e. if there were only syntactic boundaries between them), they could strategize effectively through textual artefacts. However, when the actors also needed to navigate semantic and/or pragmatic boundaries, this text-based strategizing mode was insufficient. When translation work was required between the parties (i.e. spanning semantic boundaries), or when a conflict of interests arose between them (i.e. pragmatic boundaries), textual artefacts only played a facilitating role. Effective strategizing was only achieved (or would have been achieved) via inter-personal interactions.

Second, I focused on the issue selling aspect of inter-organizational strategizing, and revealed that it was carried out as a unique form of boundary spanning, which generated its own challenges. I showed that the strategizing parties' differences in interest and power – both inherent in issue selling contexts (Dorrenbacher & Gammelgaard, 2016; Dutton et al., 2001; Howard-Grenville, 2007) – lowered the effectiveness of the boundary objects used by the issue sellers to cross the semantic and pragmatic boundaries between them and the decision makers. I also showed that these differences impeded the very start of the negotiation process between the parties, and led to latent semantic and pragmatic issues that undermined the entire collaboration process.

The implementation and enactment of pre-designed inter-organizational operations: How nominated boundary spanners become boundary spanners-in-practice

In Chapter 4, I unpacked the operational development of the first healthcare network by uncovering how nominated boundary spanners became boundary spanners-in-practice. I examined this process of becoming through a dual theoretical framing: learning through apprenticeship (Lave & Wenger, 1991) and acquiring the organizing elements of a pre-designed boundary spanning practice (Schatzki, 2002, 2012).

My main finding was that, in this inter-organizational collaboration context, the nominated novices developed into boundary spanners-in-practice through a new form of legitimate peripheral participation: one where the apprenticeship process was *inter*- rather than intra-community. My second finding was that this apprenticeship process had a gradual change of focus, which was highlighted by the second half of my theoretical framework. Thus, I found that the nominated novices progressively acquired the practice elements through the feedback and advice they received from their inter-community experts, and that they did so in a particular order. In the case of the pre-designed practice I studied, the nominated boundary spanners first acquired the teleo-affective structure (the purpose of boundary spanning activity), then the rules and practical understandings (what to do and how to do it), and finally the general understandings (the general feeling of how things should be done).

I also showed that the nominated boundary spanners' development into boundary spanners-in-practice depended not only on their own efforts as legitimate peripheral participants, but also on how the boundary spanning practice in question was pre-specified. Thus, the healthcare network's initial operational failures were also caused by flawed assumptions on behalf of the practice designers, who focused especially on defining some practice elements (the rules) and overlooked others (practical and general understandings).

Inter-organizational collaboration as the result of spanning knowledge boundaries

The findings mentioned above have resulted from the focused exploration of particular aspects of inter-organizational collaboration; as such, they are chapter-specific. Nevertheless, they also resurface – albeit in the background – throughout the processes addressed in chapters other than their own. For instance, Chapter 2's insight that intra-organizational actors should be apprised of and involved in inter-organizational developments (and vice-versa) can also be found in subsequent chapters, although expressed in different terms. In Chapter 3, the relevance of multilateral involvement can be observed in the network partners' interactions with their respective Executive Boards, as their inability to span the semantic and pragmatic boundaries between them ultimately led to the network's strategizing failure. Chapter 4 reinforces the notion as well, by indicating that the intra-organizational implementation of one organization's boundary spanning practice would have benefited from a closer

involvement of its *partners'* key actors. A similar correspondence can be found for Chapter 3's insight regarding the ineffectiveness of unilateral rather than joint translation efforts between partners, and the negative consequence of the resulting latent assumptions on the collaboration's development. In Chapter 4, this issue manifests in a top-down rather than bottom-up fashion, through the practice designers' assumptions regarding their nominated boundary spanners' ability to become boundary spanners-in-practice.

Throughout the dissertation, the "background" chapters (in the first example above, Chapters 3 and 4) indicate the identified challenge as an empirical consequence of the actors' activities. The "focus" chapters (in the first example above, Chapter 2), explain, instead, *why* that empirical development was relevant, and provide the conceptual tools to extend those explanations to different contexts. All three chapters, therefore, contribute insights towards the following notions: 1) inter-organizational collaborations are made up of several "moving parts", which interlock and/or overlap in different ways; 2) actors or communities of actors can be involved in multiple "moving parts", carrying out a different role per part; 3) the impact of one particular "interlocking" can be relayed towards a different one. This interlocking of overlapping communities, and the relay of both mistakes and successes to the "next" interaction between communities, form the basis of my dissertation's perspective on inter-organizational collaboration. This perspective shifts the focus from the actors who carry out a role, and the barriers and facilitators they have to navigate, to *how* the role is being carried out *while dealing* with the barriers and facilitators.

Moreover, my use of the knowledge boundaries and boundary spanning concepts has also allowed me to focus on barriers and facilitators that transcend particular processes or organizational levels, namely: differences in information, understanding, and interests, and the actors' (in)ability to deal with these differences. These barriers and facilitators are neither context- nor process-specific, but can impact the actors' interactions in the same ways throughout the inter-organizational collaboration, at both inter- and intra-organizational, or strategic and operational levels. Thus, my conceptual framework has allowed me to highlight and explain the underlying complexities of inter-organizational collaboration in conceptual (and therefore, generalizable), rather than empirical terms. Because of this, I have been able to draw lessons and parallels from one process or organizational level to another, and also from case to case.

On the whole, my dissertation provides thick descriptions of the processes and practices through which inter-organizational collaborations are set up, implemented, and enacted. Throughout it all, it highlights and explains the "messiness" of inter-organizational collaboration, taking important steps towards opening its black box. In the process, I bring significant contributions to both literature and practice, as I will outline below.

Contributions to literature

...from an inter-organizational collaboration perspective

My dissertation contributed to the inter-organizational collaboration literature by confirming and expanding our empirical understanding of such agreements, and by providing new conceptual insights into their processes and practices.

With regard to the former, my three studies have provided empirical proof and further elaboration for a number of conceptual or review-based ideas about inter-organizational collaboration. For instance, Chapter 2 reinforced the classic insight that inter-organizational collaboration develops through iterative cycles of negotiations, commitments, and executions (Ring & van de Ven, 1994). At the same time, it revealed that these cycles and the interactions between them are most effectively enacted though the work of key actors that engage in both inter- and intra-organizational activities – namely, multilateral boundary spanners. This newly coined role and concept explicitly captures an essential mechanism for inter-organizational development, which has until now been little addressed in the literature. Intra-organizational processes and mechanisms in the context of inter-organizational collaborations have only recently begun to be explicitly addressed – for instance, in the case of strategizing (Bowman, 2016; Deken et al., 2016) or organization design (Albers, Wohlgezogen, & Zajac, 2016). The notion of multilateral boundary spanning adds to this new perspective, and also highlights the reciprocal relationship between inter- and intra-organizational developments.

Chapter 2 also confirmed through empirical research Gulati et al.'s (2012) review-based identification of two distinct yet interconnected aspects of strategic alliances: the broader inter-organizational agreements between the partners, and the steps taken to actually execute these agreements in practice. Since my study was conducted in the context of an inter-organizational network, the chapter also expanded these insights to a different type of inter-

organizational collaboration. At the same time, it indicated that, just as inter-organizational collaborations generally feature an actor that is key for aligning the partners' interests (tasks typically captured in the role of alliance managers (Spekman et al., 1998)), they also depend extensively on an operational leader (Bass & Milosevic, 2014) that can oversee the alignment of inter-organizational operations.

Related to this latter insight, my dissertation also contributed to the inter-organizational literature by providing rich descriptions of inter-organizational processes and actors that have, until now, received little attention in the literature. The inter-organizational strategizing process, for instance, features only a handful of studies that address its development in detail (see Bowman (2016); Deken et al. (2016) for some notable exceptions). I have provided a detailed examination of the efforts required to both articulate and issue sell a network's strategy, from a perspective that showcased the implications of doing so when having different interests, professions, and degrees of power. In particular, framing the strategizing process as one carried out across different knowledge boundaries has shown that, although these differences have significant impact on the evolution and outcome of the strategizing process, they are not automatically present just because the strategizing actors are coming from different organizations, and may even have more impact intra- rather than inter-organizationally (Chapter 3). In line with this, one of my key findings on the strategizing process is equally applicable to inter- and intra-organizational contexts, namely: that actors employ different strategizing modes depending on the knowledge boundaries between them. One mode in particular – facilitated by the presence of only syntactic boundaries between the strategists – also highlighted a form of strategizing that relies significantly more on textual artefacts than previously explored examples of strategy-making (Kaplan, 2011; Maitlis & Lawrence, 2003; Paroutis & Pettigrew, 2007) (Chapter 3). Studies on inter-organizational operations are similarly few and far between (Albers et al., 2016; Gulati et al., 2012), especially ones that examine their development empirically (Arino & de la Torre, 1998; Kumar & Nti, 1998). My study of how the partners actually enact their agreements in practice (Chapter 4) therefore brings a valuable contribution to our insights into post-formation dynamics (Reuer et al., 2002).

My dissertation's major contribution, however, has been to provide a counterpoint to the inter-organizational relations literature's widespread

tendency to view the collaboration as an opaque entity that somehow stands removed from the organizations that engage in it, which are themselves often viewed as entirely cohesive (Marchington & Vincent, 2004). My consistent focus on boundaries and boundary spanning has helped resettle the research eye from the structures, factors, and processes that influence the collaboration as a whole to the interrelated interactions that are its building blocks. This was predominantly achieved by using a practice sensibility to study both its strategic and operational development. Thus, my dissertation distinguishes itself from the majority of inter-organizational collaboration studies, and produces a number of new insights. For instance, using a strategy-as-practice lens has helped me to expand the scope of the strategizing process beyond strategy articulation, and also beyond the work of managerial actors alone. This allowed me to explain the failed outcome of a seemingly straightforward strategizing process, and understand that failure not as the result of a wholly separate implementation stage, but rather as the consequence of latent conflicts of interest that had developed during the strategy's articulation (Chapter 3). I also showed that the collaboration's subsequent development past partner selection involves a variety of actors *other* than (alliance) managers, and is deeply reliant on their ability to recognize and cross the knowledge boundaries between them (Chapter 3). With regard to the collaboration's operations, viewing their false start and progressive improvement through a practice perspective has helped me to make sense of the many sources of becoming at the collaborating actors' disposal. In particular, I have shown that inter-organizational actors learn to collaborate by integrating a variety of elements: the pre-specified design of their collaborating practice, the feedback and guidance they receive from their partners, and their own experiences of engaging in collaboration (Chapter 4). Thus, for both the strategic and operational levels, my dissertation has reframed inter-organizational collaboration as resulting not from the individual actions of a chosen few, but from their interactions as community representatives. This perspective can be the stepping stone to a new and exciting wave of inter-organizational process research, where its multi-layered nature could be explored purposely and in great detail.

...from a boundary spanning perspective

Similar to my dissertation's contributions to the inter-organizational literature, I add to our understanding of knowledge boundaries and boundary spanning

in two main ways: expanding our empirical understanding of these issues, and developing new conceptual insights. With regard to the former, I have, first, expanded the robustness of Carlile's (2002, 2004) knowledge boundary framework, by applying it in inter-organizational and strategic settings, as opposed to inter-departmental ones focused on product development. I have also examined processes of boundary spanning at an inter-organizational level, which – at least when enacted with the help of boundary objects (Oldenhof et al., 2014) – have been less often studied than at the intra-organizational level. By themselves, and when employed as part of specific aspects of the inter-organizational collaboration – articulating strategy, transferring information, etc. – boundary spanners and boundary objects were shown to be no different than their "classic" counterparts. What *does* constitute a new insight is the notion of multilateral boundary spanning (Chapter 2).

Apart from highlighting the interlocking nature of inter-organizational collaboration (as previously addressed), this concept also represents a boundary spanning "response" to the complexity inherent in inter-organizational endeavours as a whole. Some past research has indicated that key boundary spanners in inter-organizational collaborations recognize the necessity of intra-organizational effort. For instance, strategic actors have been shown to acknowledge the importance of crossing intra-organizational hierarchical boundaries in order to ensure policy implementation (Williams, 2002). However, that necessity seemed to be framed as additional – and perhaps secondary – to their work as inter-organizational boundary spanners. Multilateral boundary spanning, as a concept, frames the involvement in both inter- and intra-organizational processes as equally essential to the collaboration's development, and a boundary spanning goal in its own right.

Other new insights focus on the design and development of the "classic" boundary spanning mechanisms. One key contribution is my in-depth exploration of how nominated boundary spanners become boundary spanners-in-practice (Chapter 4). The distinction between the two has provided a good explanation for the fact that few boundary spanners actually harness the well-documented benefits that their role can provide (Williams, 2002). However, we know little about how actors learn to do this effectively, apart from some key insights into the resources necessary for them to do so (Levina & Vaast, 2005, 2006, 2008, 2013). To my knowledge, my dissertation provides the first detailed exploration of the nominated actors' development process itself. While

doing so, I revisit and expand Levina and Vaast's (2005) conceptualisation of boundary spanners as legitimate peripheral participants. The authors have argued that, in order to become boundary spanners-in-practice, the nominated actors create new practices and new communities (Levina & Vaast, 2005, 2013). My dissertation has shown that, at least in the context of pre-designed transactive boundary spanning (Levina & Vaast, 2013), these new communities and practices are outcomes rather than mechanisms. In fact, in order for them to develop, the nominated boundary spanners must engage in a new type of legitimate peripheral participation, one where they learn from experts outside their community. I have also suggested that nominated actors may feature different trajectories of becoming boundary spanners-in-practice, depending on the type of boundary spanning activity they engage in: transactive (transferring or translating existing knowledge) or transformative (creating new, common knowledge) (Levina & Vaast, 2013).

Moreover, I have shown that both mechanisms are ineffective in cases where one community designs boundary objects (Chapter 3) or trains boundary spanners (Chapter 4) without involving the partner community. Although this insight is applicable to both intra- and inter-organizational contexts, it may be that the likelihood of it occurring differs from one context to another. For instance, inter-organizational contexts could make it more difficult to involve the other community in the design process, due to time concerns or the need to formalize the interaction before its start. Related to this, my last contribution to the boundary spanning literature lies in identifying issue selling as a unique form of boundary spanning (Chapter 3).

This conceptual reframing uncovers two intriguing inconsistencies in the existing insights on boundary spanning. The first relates to boundary objects, and the notion that they can effectively enable collaboration between groups without common interests (Carlile, 2002, 2004), mutual understanding (Lainer-Vos, 2013), or consensus (Star, 2010; Swan et al., 2015). My dissertation has shown that, although they can be and are being used in such contexts, they can only be effective if all the collaborating parties are involved in their (re)design. As this does not often occur in issue selling contexts, where the information transfer and translation usually flow from the issue sellers to the decision makers (Dutton et al., 2001; Howard-Grenville, 2007), boundary objects are shown to be ineffective. The second inconsistency relates to the distinction between transactive and transformative boundary spanning, and how boundary

spanners actually carry them out them in practice. Specifically, my dissertation has shown that issue selling contexts are ones where pragmatic boundaries – generally assumed to be resolved through transformative boundary spanning (Levina & Vaast, 2013) – are actually dealt with through transactive boundary spanning.

These inconsistencies accomplish two things. On the one hand, they open a series of avenues for further research, as I will address in a later section. On the other, they extend current insights into the uneven resolutions of pragmatic boundaries. Past research has acknowledged that, when one party is more powerful than the other, the pragmatic boundaries between them may be resolved in a way that is more beneficial for the former party (Carlile, 2004). In the case of boundary objects in particular, studies have noted that powerful actors may be the ones to nominate objects for boundary spanning purposes, without involving less powerful actors (Levina & Vaast, 2005). Whether or not this lowers the likelihood of those objects becoming boundary objects in-use, said objects would still likely not reflect the interests and needs of less powerful actors (Spee & Jarzabkowski, 2009). More recently, studies have also shown that some actors being more powerful can be beneficial for collaborating through boundary objects, particularly in the absence of consensus (Swan et al., 2015). Common among these insights is that they are developed from the perspective of the more powerful party – how *they* may influence the collaborative process by virtue of being more powerful. My dissertation, instead, has uncovered the boundary spanning process from the perspective of the less powerful party.

...from a healthcare management perspective

My dissertation's major contribution to healthcare management research is its focus on inter-organizational collaboration processes, as opposed to the field's typical preference for exploring their antecedents and outcomes (Minkman, Ahaus, & Huijsman, 2009; Wells & Weiner, 2007). My examination of the development of two healthcare networks, at a number of levels and from a number of perspectives, provides a well-rounded exploration of the challenges involved in setting up, implementing, and enacting inter-organizational collaborations – on the shop floor, in the meeting room, and via email. I show that these challenges are, in equal measure, a result of network-level developments (the inter-organizational interactions depicted in Chapter 2) and operational struggles (the practice acquisition process depicted in Chapter 4). Moreover, I

provide a number of suggestions on dealing with – or anticipating – the ensuing struggles in practice, as outlined in the following section.

My second contribution to this field of research concerns the, until now, rather operationally-focused examination of key boundary spanning actors and their role in collaborations. Healthcare management studies that explore the role of boundary spanners in inter-organizational collaborations predominantly focus on various types of service providers, such as care coordinators (Burkhardt, 2010; Gittell & Weiss, 2004; Lemak et al., 2004), nurses (Abrahamson, Mueller, Davila, & Arling, 2014; Masso & Owen, 2009), or general practitioners (Kousgaard, Joensen, & Thorsen, 2015). My dissertation has gone beyond these roles to also explore the involvement of middle managers in the collaborations' set-up and implementation. In so doing, I have expanded the field's insights into middle managers' key contributions to strategy formulation and implementation, which healthcare management research has largely overlooked (Belasen & Belasen, 2016; Birken, Lee, & Weiner, 2012).

At the same time, by exploring the involvement of both strategic and operational boundary spanners, in a variety of developmental stages, I have shown that their potentially positive impact on the development of inter-organizational collaboration does not (only) result from their having dual professional ties (Dwyer, 2010; Lemak et al., 2004; Vlastarakos & Nikolopoulos, 2008). Instead, it stems from their specific position in the collaboration's organizational tapestry, namely: their oftentimes multilateral involvement in a variety of relevant inter- and intra-organizational processes. In so doing, my findings have also identified a promising avenue for future research in the area of inter-organizational healthcare collaborations.

My third contribution is framing the at times fraught interactions between healthcare managers and professionals (Kuhlmann et al., 2013; Kuhlmann & von Knorring, 2014; Numerato, Salvatore, & Fattore, 2012) in terms of knowledge boundaries. Doing so helps better explain the communication breakdowns between these different actors, moving from a general difference in profession or organizational culture as the impacting factors (Klopper-Kes, Siesling, Meerdink, Wilderom, & van Harten, 2010; von Knorring, Alexanderson, & Eliasson, 2016), to more specific gaps in information (Delesie, 1998) (syntactic boundaries), understanding (Llewellyn, 2001) (semantic boundaries), and/or negotiation (von Knorring, de Rijk, & Alexanderson, 2010) (pragmatic boundaries). In addition, this framework also provides indications on how to best navigate

these gaps or boundaries between the different groups of actors – for instance, by orienting them towards clarifying the dependencies and differences between them in the case of a gap in understanding.

Contributions to practice

My dissertation's overall contributions to practice – both in the case of the healthcare sector and for organizations in general – can be found by drawing a number of lessons from the struggles and successes of the two networks I studied. The first lesson is that actors in inter-organizational collaborations should take a more pro-active and engaged approach to setting up and implementing the collaboration. This implies that parties on *both* sides of *several* fences – i.e. planners, implementers, and enactors from all the partner organizations – should actively participate in the inter- and intra-organizational developments. As I have shown in some detail in the previous chapters, failing to do so can lead to false or optimistic assumptions (Chapters 3 and 4) and the proliferation of latent conflicts of interest (Chapter 3). Thus, had the designers involved *both* communities' nominated boundary spanners in the patient handover practice's design and/or implementation process, the lack of tacit knowledge among one community's nominated boundary spanners may have been uncovered in time, and proper measures might have been taken (Chapter 4). Similarly, had the insurance company representatives actively communicated their information and knowledge needs to the GynOncNet strategists, or had these strategists, in turn, more actively included their Executive Boards in the issue selling process, the network's strategizing failure may have been avoided (Chapter 3).

A second lesson relates to the manner in which these actors approach their interaction across boundaries. As previously mentioned, many types of boundaries can feature in inter-organizational collaborations (professional, hierarchical, inter-organizational, and more), but not all of them impact the same processes at the same time. For GynOncNet, a common profession helped span the inter-organizational boundaries between the strategizing actors, thus enabling a relatively straightforward and conflict-free strategizing process (Chapter 3). The other network's middle managers did not share a profession (each having a different professional background), but their negotiations developed equally conflict-free (Chapter 2). In contrast, the different professions between the Regos ward nurses and the aftercare care coordinators caused a number of problems at the operational level (Chapter 4). Thus, it is important

to determine which boundary is actually impeding collaboration and address it accordingly. On that note, since knowledge boundaries cannot be determined a priori, but only once interactions start (Levina & Vaast, 2010), the key actors should add this exploration of relevant boundaries to their proactive initiatives (in line with the previous lesson).

Related to this, a third and final lesson regards the inevitable need to pre-specify inter-organizational practices, tools, and actors, and the problems inherent in doing so. Chapters 3 and 4 have shown that such a priori attempts tend to fail in practice, as artefacts need to be adapted, and actors and their practices need to develop over time. In both cases, my dissertation has shown that the misfit between design and enactment results either from misconstruing the salient boundary or resources required, or from a lack of pro-activity among the relevant actors. This last lesson, therefore, concerns dealing with such misfits when the previously two lessons have not been (successfully) applied. In Chapter 4, the inter-organizational operations were ultimately improved through repeated interactions between the inter-organizational boundary spanners, who purposely worked to understand each other's contexts. In Chapter 3, attempts were made to improve the initially ineffective boundary object; however, since those efforts were only made by one boundary spanning party, the boundary object remained ineffective to the end. The lesson to be drawn here is that improving interactions and designing them in an effective manner are best achieved when the key actors are pro-actively working *together* to that end. Particularly with regard to issue selling contexts, it is important that decision makers also explicitly address their dependencies and differences – as opposed to this task falling only to the issue sellers (Howard-Grenville, 2007).

All this being said, being (pro)actively involved in processes on multiple levels makes a number of demands on the actors' time and energy. As Chapter 2 has indicated, a doubling (or more) of tasks can negatively impact the boundary spanners that should be involved in these processes, leading them to either underperform (in the short term), or eventually need to be replaced in one or all processes (in the long term), Thus, actors should, as in all things, aim for a balance between the espoused benefits of (pro)active multilaterality on the one hand, and overstretching an actor's resources on the other.

Reflections on the research process and suggestions for future research

Some attention must be paid to the collected data and the analysis that led to these findings and contributions. My dissertation is fully based on qualitative data, each chapter focusing on a single case study. Having been particularly interested in examining developmental processes and practices, I aimed for depth of insight and – where possible – longitudinal involvement instead of breadth. This choice brings with it issues of generalizability – which I will address below – but could also arguably affect the robustness of my findings. I have strived to ease such concerns by triangulating my data whenever possible, in a number of ways. Interview, observation, and archival data were frequently combined – in twos and threes across different studies. Beyond this, I have carefully cross-referenced and compared information from different respondents – across departments, organizations, and functions. With regard to the networks themselves, my first case study being embedded allowed for a certain degree of comparison across the inter-organizational relationships developed between different combinations of departments. In the case of the second network, comparisons could be drawn between the strategizing actors' intra-network interactions and their interactions with the actors external to the network. Moreover, the textual artefacts used to study its development – among which a significant number of email conversations – served to provide a well-sourced view on the case.

In my analysis, I strived to avoid confirmation bias by consistently approaching the data starting from sensitising concepts, as opposed to a predefined theoretical framework. With only the sensitising concepts in mind, I first developed an understanding of each case and its actors, and then iteratively moved between theory and data in a way that allowed the findings and theorizing insights to emerge in a non-directed fashion. Moreover, I frequently consulted with my supervisors, establishing them as devil's advocates (Nemeth et al., 2001) who, as parties external to the unfolding cases and the analysis itself, could reflect on the sense and strength of my findings.

Finally, I have tried throughout this dissertation to approach my findings in a manner that acknowledges their contextual and methodological limitations. In the case of all three studies, the main limitation has been the fact that I examined network development retrospectively. Both of the networks I studied had already been undergoing the inter-organizational development processes

when I approached them; by the time access negotiations ended, so too had these processes. Due to time restrictions, I then proceeded with the retrospective analyses presented in the previous chapters. This does not, however, discount my findings, as the existing data and the measures I took to avoid recall bias ensured that it could still provide useful insights. On the one hand, this involved conducting observations and using extensive archival data. On the other, it consisted of cross-referencing interview data across respondents and sources.

Subsequent limitations result from my single case study based analysis, which embeds my results in the organizational contexts from which they were drawn. Some of the findings may be relevant for top-down oriented, transactive collaborations, while others may only be representative of bottom-up, transformative ones; all of them may be specific to hub-oriented networks in a Dutch healthcare context. That being said, my findings are predominantly exploratory. As such, they give strong indications of the existence of new concepts, relationships, or conceptualizations – however, they also indicate that future research on these issues should be conducted in different settings to help improve our understanding of them. In that sense, my findings do not greatly differ from those typical of qualitative studies.

Along with suggestions for future research determined by my methodological constraints, my dissertation also provides some new directions based on interesting findings that require a more focused examination. One example concerns the replacement of one or more boundary spanners and its potential impact on the collaborative process and outcome. This issue featured in all three of my studies, yet could not be explored in enough depth in any of them. In Chapter 2, inconstant boundary spanners were identified as a potential risk to the collaboration, as removing certain key actors would also have broken down key lines of communication. In Chapter 3, the insurance company's inconstant boundary spanner required new efforts to span the semantic boundaries between the company and the network, with an ultimately negative impact on the strategizing process. Finally, in Chapter 4, the entire inter-organizational operational process was arguably kick-started with the hospital's removal of key boundary spanners. As time went by, the hospital's nominated boundary spanners became boundary spanners-in-practice and thus successfully replaced the previous boundary spanners. Although this ultimately led to a more effective collaboration, the initial removal still caused a great deal of unrest and inefficiency in the organizations' operations. On this backdrop,

some possible questions that future research could explore are: Under what conditions – if any – can boundary spanners be removed without negatively impacting one or both communities connected by those actors? From a slightly different perspective, how does removing one or more members of a group of boundary spanners impact the collaboration between that group and its boundary spanning counterpart?

Another avenue for future research relates to transformative and transactive boundary spanning (Levina & Vaast, 2013), and their relationship with the knowledge boundaries between the communities or actors involved. Recent boundary spanning research seems to suggest that, since pragmatic boundaries are spanned by jointly creating new knowledge (Carlile, 2002, 2004), they are generally handled through transformative boundary spanning (Levina & Vaast, 2013). However, in the networks I studied, this was not always the case.

In the first network, the boundary spanning actors involved in elaborating the network's policies and procedures came together to negotiate their different interests, and the repercussions of introducing an altered patient transfer practice (Chapter 2). Thus, they engaged in transformative boundary spanning in order to implement a practice that was ultimately transactive in nature (Chapter 4). In the case of the second network (Chapter 3), the boundary spanning actors also elaborated the network's policies and procedures, but their strategizing process was predominantly enacted through transactive boundary spanning (transferring information across the syntactic organizational boundaries). This was because, although the policies and procedures they were proposing would generate a fundamental shift in the region's patient care, all the GynOncNet parties welcomed the change. This was not the case for the region's insurance company, whose interests were in conflict with the network's proposed policies (albeit only on a financial level). And yet, as previously mentioned, the network's interactions with the insurance company were closer to a transactive boundary spanning process.

On the one hand, the fact that actors can move between the two boundary spanning modes – whether inadvertently or not – in the process of working together has already been posited by the literature (Levina & Vaast, 2013); my dissertation, in this case, only provides further empirical examples of these moves. On the other hand, these examples suggest that actors may engage in transactive boundary spanners even when aware of the pragmatic issues at stake, a type of interaction which – to the best of my knowledge – has not yet been

expressly studied. Considering this, a review of the extant empirical research on boundary spanning forms could identify relevant examples of transactive and transformative boundary spanning, and determine whether they correspond with the actual knowledge boundaries between the collaborating parties. Empirical research extending my insights on the topic could follow.

In closing...

What I ultimately hoped to achieve with this dissertation was to show and explain what organizational actors actually *do* when engaging in inter-organizational collaboration – at a number of hierarchical levels, and across a number of developmental stages. Using a combination of conceptual lenses, I have shown that inter-organizational collaboration depends on the ability of key organizational actors to span a multitude of boundaries – either directly, or through the use of specific tools. Both types of interactions have been shown to yield better results if the actors in question are aware of this complexity and act accordingly – that is, by proactively involving other relevant actors in both planning and implementation stages. At the heart of it all, setting up, implementing, and enacting inter-organizational collaboration could thus be seen as driven by proactive engagement across a multitude of intersecting intra- and inter-organizational domains. In both practice and theory, this perspective provides a new and exciting approach to inter-organizational collaboration, which explicitly highlights its multi-layered nature.

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Appendices

Appendix 1. Overview of GynOncNet's strategizing team meetings in 2010[27]

Date	Actors	Agenda points
26th of Jan 2010	*Care mng & Gyn*	1. Opening (Robert) 2. Introduction participants (= drafters business plan) **3. Background and development plan (Robert)**[*)] 4. Agreements and future meeting
22nd of Jun 2010	*Care mng*	1. Feedback [external advisor] inventorying round **2. Project contract (already sent)** **- please prepare with your colleagues in your own organizations** **- discuss and ratify** **3. Basic data collection (see attachment)** **- check parameters + actors, if necessary adjust/add** **- make agreements** **4. Care paths (see attachment)** **- inventory the existing GynOncNet initiative re: care paths** **- describe care paths/tumour type: make agreements re: approach** 5. Date following meeting (see attachment) - please check the options 6. Any other business
30th of Aug 2010	*Care mng*	1. Meeting minutes 22 June (see attachment, already sent) 2. Feedback [external advisor] inventorying round 3. Meeting with insurer **4 Basic data collection (see attachments)** **- current status** **- agreements re: supplying the data** **5. Care paths (see attachments, format academic hospital)** **- current status:** *** General hospital A: endometrial** *** General hospital B: ovarian** *** General hospital C: cervical** *** Academic hospital: endometrial, ovarian, cervical** **6. Preconditions for gynaecological cancer care (see attachment: Project contract / response, sent earlier)** **- Which should be met?** - ideal vs minimum completion (scenarios re: business plan) 7. Any other business

27 Bolded entries indicate agenda points that related to a textual artefact. Those marked with an asterisc indicate a previously prepared slide-deck that would later be incorporated in the business plan.

Date	Actors	Agenda points
5th of Oct 2010	*Gyn*	1. Current status GynOncNet project group **2. Basic data** **- view on available data** **3.Care paths** **-view on available diagnosis/care paths:** *** General hospital A: endometrial** *** General hospital B: ovarian** *** General hospital C: cervical** *** Academic hospital: endometrial, ovarian, cervical** **4. Patient flows** **- desired situation based on basic data + care paths**[*)] 5. Next meeting 6. Any other business
5th of Oct 2010	*Care mng*	1. Meeting minutes 30 August (see attachment, already sent) 3. Feedback presentation insurer 30 sept. **4. Basic data collection (everyone brings them to the meeting)** **- current status** **- what next** **5. Care paths (General hospital B and academic hospital bring them to the meeting)** **- current status:** *** General hospital A: endometrial** *** General hospital B: ovarian** *** General hospital C: cervical** *** Academic hospital: endometrial, ovarian, cervical** **- what next** **6. Preconditions for gynaecological cancer care (see attachment)** **- Question: which conditions are already met in your hospital or being worked on?** **- Ideal vs minimal implementation (scenarios for business plan)** 7. Proposal cooperation agreements other GynOncNet disciplines - development plan 8. Proposal patient network - development plan 9. Any other business

Date	Actors	Agenda points
22nd of Nov 2010	*Care mng*	2. Meeting minutes October 5th. (See attachment, previously sent) **3. Feedback meeting with gynaecologists October 5th. (See attachment, PowerPoint document)[*)]** **4. Provisional budget for deploying oncologist gynaecologists** **5. Business Plan[34]** **- What next, planning** **- Coordination within hospitals involved: partnerships, multidisciplinary ExeBoard.** 6. Any other business - extra meetings in 2011
7th of Dec 2010	*Gyn*	2. Current status GynOncNet project group 3. Review facilities for oncological care (trajectory) **4. Regional concentration according to competence (numbers)** **5. Conclusion final proposal organization Gynaecological Oncological care** 6. Development differentiation / window year 6. Next meeting 7. Any other business
13th of Dec 2010	*Care mng*	**No specific agenda; general meeting at the end of the year deciding the steps to be taken in the coming year**

Appendix 2. Overview of GynOncNet's strategizing team meetings in 2011-2012[28]

Date	Actors	Agenda points
16th of Feb 2011	*Gyn*	1. Agreements meeting December 7 **2. Funding / business plan GynOncNet** ***) discussed the first business plan draft with financial information** 3. Organization GynOncNet 4. Future steps GynOncNet 6. Any other business
22nd of Mar 2011	*Gyn*	1. National quality requirements (gynaecological) cancer care Measuring to what extent GynOncNet sites meet those requirements Need for and consequences of GynOncNet organization 2. Follow-up agreements February 16: organization and revenues GynOncNet: - Patient Portal (pathway and ICT) Sam, Jane - CareDomain and other e-health applications Phil - Gynaecologists with an oncology focus earlier in patient trajectory Sam, Jane Who, when, where (fixed days) Martin, Roy Tumour Board / videoconferencing Hank Jane **3. GynOncNet Activities and costs 2008-2012** **4. Information needed for Business Plan** 5. Planning next meeting
5th of Apr 2011	*Care mng*	**1. Proposal funding methodology GynOncNet** **2. Fee Component gynaecological cancer in DTCs** 3. Planning next meeting
18th of Apr 2011	*Gyn*	1. GynOncNet Organization a. Tumor Board / videoconferencing (Hank and Jane) b. Portal, gynaecologists with an oncology focus earlier in trajectory (Sam / Jack and Jane) c. Who, when, where (fixed days) (Martin and Roy) **2. GynOncNet Revenues and costs** **3. Required information for GynOncNet business plan & management** 4. Plans May meeting date
3rd of May 2011	*Gyn*	**No information about the agenda, but there was likely a meeting between gynaecologists on this day, as there were several versions of the business plan saved with this day in its title, suggesting Business Plan preparation during a meeting**

28 Bolded entries indicate agenda points that related to a textual artefact

Date	Actors	Agenda points
23rd of June 2011	*Care mng*	**No information about the agenda, but the fact that the financing of the network and the approach taken to present things to the insurer were the topics of this meeting was evidenced via emails to the care managers**
25th of Oct 2011	*Gyn & care mng*	**No agenda for this meeting, but clear from emails and documents that the "final" BP and its summary were presented to the managers and gynaecologists on this date**
19th of Sept 2012	*Gyn*	2. Update GynOncNet 3. Update developments Academic hospital – external organization cooperation 4. Evaluation of consultations on fixed days 5. Initiatives per general hospital and in the region: a. Referrals endometrial cancer b. Ovipec – General hospital A c. Laparoscopic surgery – General hospital B d. New oncologist – General hospital C e. Care path development f. Differentiation Year Oncology g. Chemotherapy academic hospital 6. Future plans (cooperation + improvement)
23rd of Oct 2012	*Gyn*	2. GynOncNet improvement points: • Better distribution ("case mix region") • Portal • Video conferencing • PR • Uniformity EPD / OT Reports / Letters 3. Initiatives per general hospital and in the region a. Referrals endometrial cancer b. Ovipec – General hospital A c. Laparoscopic surgery – General hospital B d. New oncologist – General hospital C e. Care path development f. Differentiation Year Oncology g. Chemotherapy academic hospital 4. Any other business
13th of Nov 2012	*Care mng*	**No specific agenda for the meeting, but from email conversations we know that the care managers discussed the last financial updates that need to be brought to the business plan (after a final meeting with the insurer on October 9th)**


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English summary

Healthcare provision around the world is characterized by ever-increasing costs and heavy fragmentation of care (Berg et al., 2005; Weinberg et al., 2007). In the Netherlands and abroad, healthcare organizations have widely engaged in inter-organizational collaborations in order to deal with these challenges, often with the support of government mandates (RVZ, 2011; Weinberg et al., 2007). This trend is not limited to the healthcare sector; over the past four decades, organizations across industries have increasingly formed inter-organizational collaborations in order to reduce costs, acquire resources and knowledge, and increase legitimacy (Barringer & Harrison, 2000; Zhang & Huxham, 2009).

But despite this longstanding history, every other alliance is reported to disband without achieving its desired outcome (Dyer et al., 2001; Kale & Singh, 2009; Lunnan & Haugland, 2008; Zineldin & Dodourova, 2005). Those inter-organizational collaborations that do succeed encounter significant challenges, especially in their early stages (Kelly et al., 2002; Langfield-Smith, 2008; Vlaar et al., 2006). This is also the case in the healthcare sector, where more than 50% of healthcare collaborations reportedly fail to implement their plans, and often disband in their first year (Lasker et al., 2001; Gittell & Weiss, 2004).

In both healthcare management and the "general" organizational research streams, a wide variety of studies have been conducted in order to better understand inter-organizational collaborations and tackle their challenges. However, most studies in the field have largely focused more on the collaborations' structure and antecedents than on their developmental processes (de Rond & Bouchikhi, 2004; Minkman et al., 2009). As a result, we know relatively little about the actual activities required to achieve and sustain collaboration between partners (Reuer et al., 2002; Zeng & Chen, 2003), or what actors actually do in order to govern the relationship and its operations (Ness, 2009).

My research aims to shed more light on these aspects, by shifting attention from the structures, factors, and processes that influence a collaboration as a whole, to the interrelated interactions that are, themselves, the collaboration's building blocks. Thus, my research objective is *to open the black box of inter-organizational collaboration by delivering new insights into processes and practices involved in setting up, implementing, and enacting it.*

Inter-organizational collaboration: Social processes developed across boundaries

My dissertation uses a practice sensibility to study the development of inter-organizational collaboration. There are a number of practice approaches in the social sciences, each with their own specificities, but also with an array of conceptual similarities (Nicolini, 2012). All practice perspectives have a relational view of the social world. They conceptualize it as a net of ongoing performances and assemblages, the results of which are resources for *other* performances. In this perspective, durability is achieved by inscribing practices in bodies, minds, and objects; in turn, these durable aspects can disrupt or alter the practices they participate in. Thus, this approach to social structures uncovers the effortful work that stands behind the seemingly durable features of the world. In line with this perspective, my dissertation views inter-organizational collaboration not as an outcome, but as a social process engaged in by a variety of organizational actors.

Particular to this process is the fact the actors who engage in it must interact across a variety of boundaries: inter- and intra-organizational, strategic and operational, or determined by different professions, to name but a few. Research on organizational collaboration has defined boundaries as differences between the knowledge or work practices of organizational groups (Carlile, 2004; Levina & Vaast, 2013). In line with this, I conceptualize the aforementioned boundaries as *knowledge boundaries*, and therefore frame inter-organizational collaboration as the result of *boundary spanning work*. There are three types of knowledge boundaries that partners can come across when collaborating: *syntactic boundaries*, when they lack a common language and the information transfer between them is insufficient or problematic; *semantic boundaries*, when they lack common meanings and must clarify their dependencies and differences with regard to the collaboration; and *pragmatic boundaries*, when they are dealing with conflicting interests and/or practices, and must jointly negotiate for a (new) common interest (Carlile, 2002, 2004).

These knowledge boundaries can be resolved through the work of *boundary spanners*, and/or the use of *boundary objects*. The former are actors whose role it is to enable collaboration between two or more distinct groups (actors, departments, branches, organizations, cultures, etc.) by sharing and translating information between them (Cross & Parker, 2004). Boundary objects are flexible epistemic objects with a common identity across several social or

cultural worlds, which are used by the actors in those worlds to share meaning across boundaries (Star & Griesemer, 1989).

How does it all work? Empirical insights into inter-organizational development

Using these concepts, I study the development of two healthcare networks in the Netherlands. The first network is a top-down oriented initiative to redesign a patient handover procedure between a general hospital and its aftercare partners. My exploration of this network involved studying four of the hospital's nurse wards and three of its aftercare partners. The second network is a bottom-up oriented initiative of Dutch gynaecologists and care managers to better organize gynaecological cancer care in their region. Key actors in this network were an academic hospital, its three general hospital partners, and an insurance company that operated in the region.

Each of my dissertation's three studies focuses on one particular aspect of these networks' development. Chapter 2 explores the interplay between inter- and intra-organizational processes in the set-up and implementation of the first healthcare network. I focus on this interplay because inter-organizational studies have typically addressed how antecedents impact *either* the organization *or* the network, as if these two levels were independent of each other. As a result, we know relatively little about how inter-organizational network agreements are enacted intra-organizationally, or how intra-organizational developments, in turn, affect network-level developments. Chapter 2 frames the healthcare network's development as a series of negotiations, commitments, and executions (Ring & van de Ven, 1994), and focuses on how boundary spanners navigated inter- and intra-organizational boundaries in the process. Based on semi-structured interviews and documents, I found that boundary spanners who were involved in both inter- and intra-organizational developments – whom I refer to as multilateral – generated a virtuous cycle in the network's development. More specifically, their involvement in one area (e.g. inter-organizational) was positively reinforced by the knowhow and information they had gained in another area (intra-organizational), and so on. In contrast, the boundary spanners who were not multilaterally involved were vulnerable to implementation problems. This led me to propose multilateral boundary spanning as a key mechanism for the set-up and implementation of inter-organizational collaboration. I also found that the healthcare network's development featured two nested cycles

of negotiations, commitments and executions (Ring & van de Ven, 1994): one dedicated to setting up the network's inter-organizational agreements, and the other dedicated to their operational implementation and enactment. Each cycle featured a key multilateral boundary spanner: a strategic leader and an operational leader, respectively.

In Chapter 3, I use a strategy-as-practice perspective to examine the inter-organizational strategizing process of the second healthcare network. I study this process because, despite its key role in the set-up and development of inter-organizational collaboration, the number of studies that address it empirically are few and far between (Deken et al., 2016). In line with the strategy-as-practice perspective, I examine the work of non-typical strategists, and explore both the strategy's articulation and its issue selling. In particular, I focus on two issues. First, if and how the different knowledge boundaries between the key actors impacted their strategizing. Second, *how* these actors strategized across knowledge boundaries, through the work of boundary spanners or the use of boundary objects. Based mainly on an extensive array of textual artefacts, I developed two key insights. First, I showed that knowledge boundaries did impact the actors' strategizing mode. Thus, when the actors only dealt with syntactic boundaries, they could strategize effectively through textual artefacts. However, when they also dealt with semantic and/or pragmatic boundaries, textual artefacts only played a facilitating role; in these cases, effective strategizing was only achieved via inter-personal interactions. Second, I revealed that the actors' issue selling efforts were a unique form of boundary spanning, in which the partners' differences in interest and power – both inherent in issue selling contexts (Dorrenbacher & Gammelgaard, 2016; Dutton et al., 2001; Howard-Grenville, 2007) – generated several specific challenges. On the one hand, these differences lowered the effectiveness of the issue sellers' boundary objects. On the other, they impeded the negotiation processes between the partners, and led to latent semantic and pragmatic issues that undermined the overall collaboration process.

In Chapter 4, I use two other practice perspectives to study the implementation and enactment of the first network's pre-designed inter-organizational operations. Here too, I focus on these topics because inter-organizational developments at the operational level have been empirically under-studied (Gulati et al., 2012). In line with my overall conceptualizaton of inter-organizational collaboration, I frame the network's successful operatons

as the effective boundary spanning between key organizational actors. Thus, in order to study the *development* of inter-organizational operations, I focus on how the network's nominated boundary spanners became boundary spanners-in-practice (Levina & Vaast, 2005). In particular, I examine this process of becoming through a dual theoretical framing: learning through apprenticeship (Lave & Wenger, 1991) and acquiring the organizing elements of the pre-designed boundary spanning practice (Schatzki, 2002, 2012). Based on semi-structured interviews, documents, and observations, I developed three main findings. First, I showed that, in this inter-organizational collaboration context, the nominated boundary spanners developed into boundary spanners-in-practice through a new form of apprenticeship, which was inter- rather than intra-community. Second, I found indications that the nominated boundary spanners acquired the relevant practice elements in a particular order: first the teleo-affective structure (the purpose of boundary spanning activity), then the rules and practical understandings (what to do and how to do it), and finally the general understandings (the general feeling of how things should be done). Finally, I showed that the nominated boundary spanners' development into boundary spanners-in-practice depended not only on their own efforts as legitimate peripheral participants, but also on how the boundary spanning practice was pre-specified by the practice designers.

Put together, these findings produce a holistic, multi-layered perspective on the processes and practices of inter-organizational collaboration. In this way, my dissertation highlights and explains the "messiness" of inter-organizational collaboration, and brings a number of contributions to both theory and practice, as I outline below.

Contributions to theory and practice

To begin with, my dissertation contributes to the inter-organizational collaboration literature by providing rich descriptions of inter-organizational processes that have, until now, received little attention in the literature, i.e. inter-organizational strategizing (Bowman, 2016; Deken et al., 2016) and inter-organizational operations (Albers et al., 2016; Gulati et al., 2012). Its major contribution, however, has been to provide a counterpoint to the inter-organizational relations literature's widespread tendency to view the collaboration as an opaque entity that somehow stands removed from the organizations that engage in it, which are themselves often viewed as entirely

cohesive (Marchington & Vincent, 2004). My consistent focus on boundaries and boundary spanning has helped resettle the research eye from the structures, factors, and processes that influence the collaboration as a whole to the interrelated interactions that are its building blocks. Thus, for both the strategic and operational levels, my dissertation has reframed inter-organizational collaboration as resulting not from the individual actions of a chosen few, but from their interactions as community representatives. This perspective can be the stepping-stone to a new and exciting wave of inter-organizational process research, where its multi-layered nature could be explored purposely and in great detail.

My study of boundary spanning processes at the inter- rather than intra-organizational level has also provided contributions to this stream of research. First, my newly developed notion of multilateral boundary spanning recognizes that key actors' involvement in inter-organizational processes is equally as important as their involvement in intra-organizational ones. This extends past boundary spanning research in inter-organizational contexts, where the boundary spanners' *intra*-organizational efforts were framed as additional – and perhaps secondary – to the actors' work as *inter*-organizational boundary spanners (Williams, 2002). Second, I have provided new insights into the design and development of both boundary spanning mechanisms. Specifically, I have shown that they are ineffective when one community designs boundary objects (Chapter 3) or trains boundary spanners (Chapter 4) without involving the collaborating community. Moreover, to my knowledge, my dissertation provides the first detailed exploration of a boundary spanner's process of becoming. Third and finally, I have extended current insights into the uneven resolutions of pragmatic boundaries. Past research has acknowledged that, when one party is more powerful than the other, the pragmatic boundaries between them may be resolved in a way that is more beneficial for the stronger party (Carlile, 2004). Insights on the topic are typically developed from the perspective of the more powerful party, focusing on how they may influence the collaborative process. My dissertation, instead, has uncovered the boundary spanning process from the perspective of the less powerful party.

Finally, my dissertation also makes a number of contributions to healthcare management, regarding both research and practice. First, I contribute to the field through my focus on inter-organizational collaboration *processes*, as opposed to its typical preference for studying antecedents and outcomes (Minkman

et al., 2009; Wells & Weiner, 2007). By examining the development of two healthcare networks, at a number of levels and from a number of perspectives, I have provided a well-rounded exploration of the challenges involved in setting up, implementing, and enacting inter-organizational collaborations – on the shop floor, in the meeting room, and via email. My second contribution lies in framing the sometimes-fraught interactions between healthcare managers and professionals (Kuhlmann et al., 2013; Kuhlmann & von Knorring, 2014; Numerato et al., 2012) in terms of knowledge boundaries. Doing so helps better explain the communication breakdowns between these different actors, moving from a general difference in profession or organizational culture as the impacting factors (Klopper-Kes et al., 2010; von Knorring et al., 2016), to more specific gaps in information, understanding, and/or negotiation.

More generally, and relevant to both healthcare networks and collaborations in other sectors, my findings suggest that actors in inter-organizational collaborations should take a more pro-active and engaged approach to setting up and implementing the collaboration. This implies that parties on *both* sides of *several* "fences" – i.e. planners, implementers, and enactors from *all* the partner organizations – should actively participate in the inter- and intra-organizational developments. Failing to do so can lead to false or optimistic assumptions and the proliferation of latent conflicts of interest. Particularly with regard to issue selling contexts, it is important that decision makers also explicitly address their dependencies and differences – as opposed to this task falling only to the issue sellers. That being said, being (pro)actively involved in processes on multiple levels makes great demands on the actors' time and energy. Thus, actors should, as in all things, aim for a balance between the espoused benefits of (pro)active multilaterality on the one hand, and overstretching their resources on the other.

Nederlandse samenvatting

Gezondheidszorg over de hele wereld wordt gekenmerkt door steeds hogere kosten en sterke fragmentatie (Berg et al., 2005; Weinberg et al., 2007). In Nederland en in het buitenland hebben zorginstellingen op grote schaal inter-organisatorische samenwerkingen aangegaan om deze uitdagingen aan te pakken, vaak met steun van overheidsmandaten (RVZ, 2011; Weinberg et al., 2007). Deze trend is niet beperkt tot de zorgsector; in de afgelopen vier decennia hebben organisaties in bijna alle industrieën steeds vaker organisatorische samenwerkingen gevormd om hun kosten te verminderen, middelen en kennis te verwerven en legitimiteit te verhogen (Barringer & Harrison, 2000; Zhang & Huxham, 2009).

Ondanks deze langdurige geschiedenis worden allianties regelmatig ontbonden zonder het gewenste resultaat te bereiken (Dyer et al., 2001; Kale & Singh, 2009; Lunnan & Haugland, 2008; Zineldin & Dodourova, 2005). De inter-organisatorische samenwerkingen die er wel in slagen ondervinden belangrijke uitdagingen, vooral in de eerste fases (Kelly et al., 2002; Langfield-Smith, 2008; Vlaar et al., 2006). Dit is ook het geval in de zorgsector, waar meer dan 50% van de samenwerkingsverbanden hun plannen niet naleeft en vaak in het eerste jaar ontbindt (Lasker et al., 2001; Gittell & Weiss, 2004).

In zowel de gezondheidszorg als de 'algemene' organisatorische onderzoeksstromen is een breed scala aan studies uitgevoerd om de inter-organisatorische samenwerkingen beter te begrijpen en hun uitdagingen aan te pakken. De meeste studies op dit gebied zijn echter grotendeels meer gericht op de structuur en de antecedenten van de samenwerkingsverbanden dan op hun ontwikkelingsprocessen (De Rond & Bouchikhi, 2004; Minkman et al., 2009). Als gevolg hiervan weten we relatief weinig over de werkelijke activiteiten die nodig zijn om samenwerking tussen partners te bereiken en te onderhouden (Reuer et al., 2002, Zeng & Chen, 2003) of wat actoren eigenlijk doen om de relatie en de operaties te regeren (Ness, 2009).

Mijn onderzoek streeft ernaar om licht te werpen op deze aspecten door de aandacht te verschuiven van de structuren, factoren en processen die een samenwerkingsverband als geheel beïnvloeden, naar de onderling verbonden interacties die de bouwstenen van het samenwerkingsverband zijn. Mijn onderzoeksdoelstelling is dus *om de zwarte doos van inter-organisatorische*

samenwerking te openen door nieuwe inzichten te geven in processen en praktijken die betrokken zijn bij het opzetten, uitvoeren en uitoefenen van deze samenwerking.

Inter-organisatorische samenwerking: Sociale processen ontwikkeld over grenzen

Mijn proefschrift maakt gebruik van 'praktijk' perspectieven om de ontwikkeling van inter-organisatorische samenwerking te bestuderen. Er zijn een aantal benaderingen om 'praktijken' te onderzoeken in de sociale wetenschappen, elk met hun eigen specifieke eigenschappen, maar ook met een reeks conceptuele overeenkomsten (Nicolini, 2012). Alle perspectieven op 'praktijken' hebben een relationeel beeld van de sociale wereld. Ze zien de wereld als een net van voortdurende 'optredens' en assemblages, waarvan de uitkomsten middelen zijn voor *andere* optredens. In dit perspectief wordt het voortduren van praktijken bereikt door het verwerken van praktijken in lichamen, gedachten en voorwerpen; op hun beurt kunnen deze duurzame aspecten de praktijken waaraan zij deelnemen verstoren of veranderen. Deze visie op sociale structuren onthult dus het inspannende werk dat achter de ogenschijnlijk duurzame eigenschappen van de wereld staat. In lijn met dit perspectief ziet mijn proefschrift inter-organisatorische samenwerking niet als een resultaat, maar als een sociaal proces waar door een aantal organisatorische actoren in wordt deelgenomen.

Bijzonder aan dit proces is het feit dat de actoren die er mee omgaan, met elkaar over verschillende grenzen moeten interacteren: inter- en intra-organisatorisch, strategisch en operationeel, of op basis van verschillende beroepen, om maar een paar te noemen. Onderzoek naar organisatorische samenwerking heeft grenzen gedefinieerd als verschillen tussen de kennis of werkpraktijken van organisatorische groepen (Carlile, 2004; Levina & Vaast, 2013). In lijn hiermee zie ik de bovengenoemde grenzen als *kennisgrenzen* en zie ik daarom inter-organisationele samenwerking als gevolg van *boundary spanning work* (letterlijk vertaald als grensoverschrijdend werk). Er zijn drie soorten kennisgrenzen die partners kunnen tegenkomen wanneer zij samenwerken: *syntactische grenzen*, wanneer de informatieoverdracht tussen hen onvoldoende of problematisch is en ze een gemeenschappelijke taal moeten ontwikkelen; *semantische grenzen*, wanneer zij geen gemeenschappelijke betekenissen hebben, en ze hun afhankelijkheden en verschillen met betrekking

tot de samenwerking moeten verduidelijken; en *pragmatische grenzen*, wanneer zij te maken hebben met tegenstrijdige belangen en/of praktijken, en gezamenlijk moeten onderhandelen over een (nieuw) gemeenschappelijk belang (Carlile, 2002, 2004).

Deze kennisgrenzen kunnen worden opgelost door middel van het werk van *boundary spanners* (letterlijk vertaald als grensoverschrijders), en/of het gebruik van *boundary objects* (letterlijk vertaald als grensobjecten). De eerste zijn actoren die de samenwerking tussen twee of meer verschillende groepen (actoren, afdelingen, filialen, organisaties, culturen, enz.) mogelijk maken door informatie te delen en te vertalen (Cross & Parker, 2004). Boundary objecten zijn flexibele epistemische objecten met een gemeenschappelijke identiteit in meerdere sociale of culturele werelden, die door de actoren in die werelden gebruikt worden om betekenis over grenzen te delen (Star & Griesemer, 1989).

Hoe werkt het allemaal? Empirische inzichten in inter-organisatieontwikkeling

Met deze concepten bestudeer ik de ontwikkeling van twee gezondheidszorgnetwerken in Nederland. Het eerste netwerk is een top-down georiënteerd initiatief om de patiëntoverdracht tussen een algemeen ziekenhuis en haar nazorgpartners te herontwerpen. Mijn studie van dit netwerk betrof het bestuderen van vier ziekenhuisverpleegafdelingen en drie nazorgpartners. Het tweede netwerk is een bottom-up georiënteerd initiatief van Nederlandse gynaecologen en zorgmanagers om de gynaecologische kankerzorg in hun regio beter te organiseren. Belangrijkste actoren in dit netwerk waren een academisch ziekenhuis, zijn drie algemene ziekenhuispartners en een verzekeringsmaatschappij die in de regio actief was.

Elk van de drie studies van mijn proefschrift richt zich op een bepaald aspect van de ontwikkeling van deze netwerken. Hoofdstuk 2 onderzoekt de interactie tussen inter- en intra-organisatorische processen bij de opzet en implementatie van het eerste zorgnetwerk. Ik richt mij op deze interactie, omdat inter-organisatorische studies over het algemeen onderzoeken hoe antecedenten invloed hebben op *of* de organisatie *of* het netwerk, alsof deze twee niveaus onafhankelijk van elkaar zijn. Als gevolg hiervan weten we relatief weinig over hoe inter-organisatorische afspraken intra-organisatorisch worden aangenomen, of hoe intra-organisatorische ontwikkelingen, op hun beurt, invloed hebben op netwerkniveau ontwikkelingen. Hoofdstuk 2 schetst de ontwikkeling

van het gezondheidsnetwerk als een reeks onderhandelingen, verbintenissen en executies (Ring & van de Ven, 1994), en richt zich op hoe boundary spanners de inter- en intra-organisatorische grenzen in het proces hebben overschreden. Gebaseerd op semigestructureerde interviews en documenten, vond ik dat boundary spanners die betrokken waren bij zowel inter- en intra-organisatorische ontwikkelingen – die ik multilateraal genoemd heb – een virtueuze (positieve) cyclus in de ontwikkeling van het netwerk genereerden. Meer specifiek werd hun betrokkenheid op een gebied (bijvoorbeeld inter-organisatorisch) positief versterkt door de knowhow en informatie die zij op een ander gebied (intra-organisatorisch) hadden opgedaan, enzovoort. Daarentegen waren de boundary spanners die niet multilateraal betrokken waren kwetsbaar voor implementatieproblemen. Op basis hiervan stel ik multilaterale boundary spanning voor als een belangrijk mechanisme voor de opzet en implementatie van inter-organisatorische samenwerking. Ik concludeer ook dat de ontwikkeling van het zorgnetwerk twee genestelde cycli van onderhandelingen, verbintenissen en executies bevat (Ring & van de Ven, 1994): de ene bestemd voor het opzetten van de inter-organisatieovereenkomsten van het netwerk en de andere gericht op de operationele implementatie en de uitvoering ervan. Elke cyclus omvatte een belangrijke multilaterale boundary spanner: respectievelijk een strategische leider en een operationele leider.

In hoofdstuk 3 gebruik ik een *strategy-as-practice* (letterlijk vertaald als strategie-als-praktijk) perspectief om het inter-organisatorische strategiseringsproces van het tweede zorgnetwerk te onderzoeken. Ik bestudeer dit proces omdat, ondanks zijn sleutelrol bij de opzet en ontwikkeling van inter-organisatorische samenwerking, het aantal studies die het strategeringsproces empirisch bestuderen, nog zeer gering is (Deken et al., 2016). In lijn met het strategy-as-practice perspectief, onderzoek ik het werk van atypische strategen, en ontdek zowel het formuleren van de strategie als het *issue selling* (ongeveer vertaald als het pitchen van een strategisch idee) ervan. In het bijzonder richt ik mij op twee problemen. Ten eerste, of en hoe de verschillende kennisgrenzen tussen de belangrijkste actoren hun strategisering beïnvloeden. Ten tweede, *hoe* deze actoren over kennisgrenzen strijden, door het werk van boundary spanners of het gebruik van boundary objecten. Op basis van een breed scala aan tekstuele artefacten ontwikkelde ik twee belangrijke inzichten. In de eerste plaats toon ik aan dat kennisgrenzen de strategiseringsmodus van de actoren beïnvloeden. Dus, wanneer de acteurs alleen met de syntactische grenzen te maken hadden,

zouden ze effectief kunnen strategiseren door middel van tekstuele artefacten. Echter, wanneer zij ook met semantische en/of pragmatische grenzen te maken hadden, speelden tekstuele artefacten alleen een faciliterende rol; in deze gevallen werd effectieve strategisering alleen bereikt via interpersoonlijke interacties. In de tweede plaats bleek dat de issue selling pogingen van de actoren een unieke vorm van boundary spanning activiteiten waren, waarin de partners' verschillen in belangstelling en macht – allebei inherent issue selling contexten (Dorrenbacher & Gammelgaard, 2016; Dutton et al., 2001; Howard-Grenville, 2007) – een aantal specifieke uitdagingen genereerde. Aan de ene kant verlaagden deze verschillen de effectiviteit van de strategieverkopers' boundary objecten. Anderzijds belemmerden zij de onderhandelingsprocessen tussen de partners en leidden tot latente semantische en pragmatische problemen die het algemene samenwerkingsproces ondermijnen.

In hoofdstuk 4 gebruik ik twee andere praktijkperspectieven om de uitvoering en het uitoefenen van de vooropgestelde inter-organisatorische operaties van het eerste netwerk te bestuderen. Hierbij concentreer ik mij ook op deze onderwerpen omdat inter-organisatorische ontwikkelingen op operationeel niveau minder vaak empirisch onderzocht zijn (Gulati et al., 2012). In lijn met mijn algemene conceptualisatie van inter-organisatorische samenwerking, frame ik de succesvolle operaties van het netwerk als de effectieve boundary spanning tussen belangrijke organisatorische actoren. Om de *ontwikkeling* van inter-organisatorische operaties te bestuderen, concentreer ik mij op de manier waarop de door de netwerken aangewezen boundary spanners, boundary spanners-in-de-praktijk werden (Levina & Vaast, 2005). In het bijzonder onderzoek ik dit proces door middel van een duaal theoretisch kader: leren door *apprenticeship* (ongeveer vertaald als in de leer zijn) (Lave & Wenger, 1991) en het verwerven van de organiserende elementen van de voorontworpen boundary spanning praktijk (Schatzki, 2002, 2012). Op basis van semigestructureerde interviews, documenten en observaties ontwikkelde ik drie hoofdresultaten. Ten eerste heb ik aangetoond dat, in deze inter-organisatorische samenwerkingscontext, de aangewezen boundary spanners zich ontwikkelden tot boundary spanners-in-de-praktijk door middel van een nieuwe vorm van apprenticeship, die inter- in plaats van intra-gemeenschap was. Ten tweede vond ik indicaties dat de aangewezen boundary spanners de relevante praktijkelementen in een bepaalde volgorde verworven: eerst de teleo-affectieve structuur (het doel van de boundary spanning activiteit), dan de

regels het praktische begrip (wat te doen en hoe het te doen), en ten slotte het algemene begrip (het algemene gevoel van hoe dingen gedaan moeten worden). Tenslotte heb ik aangetoond dat de ontwikkeling van de aangewezen boundary spanners in boundary spanners-in-de-praktijk niet alleen afhankelijk was van hun eigen inspanningen, als legitieme perifere deelnemers, maar ook van de manier waarop de boundary spanning praktijk vooraf bepaald werd door de praktijkontwerpers.

Deze bevindingen vormen samen een holistisch, gelaagd perspectief op de processen en praktijken van inter-organisatorische samenwerking. Op deze manier benadrukt en verduidelijkt mijn proefschrift de "rommeligheid" van inter-organisatorische samenwerking, en brengt het een aantal bijdragen aan zowel theorie als praktijk, zoals ik hieronder benadruk.

Bijdragen aan theorie en praktijk

Allereerst draagt mijn proefschrift bij aan de inter-organisatorische samenwerkingsliteratuur door middel van rijke beschrijvingen van inter-organisatorisch processen die tot nu toe weinig aandacht hebben gekregen in de literatuur, d.w.z. inter-organisatorische strategisering (Bowman, 2016; Deken et al., 2016) en inter-organisatorische operaties (Albers et al., 2016; Gulati et al., 2012). De belangrijkste bijdrage hiervan was echter dat het ingaat tegen de wijdverbreide tendens in de inter-organisatorische relaties literatuur om de samenwerking als een ondoorzichtige entiteit te zien die op een of andere manier losstaat van de organisaties die eraan deelnemen, die op hun beurt vaak als geheel samenhangend worden beschouwd (Marchington & Vincent, 2004). Mijn consistente focus op grenzen en boundary spanning heeft geholpen om de onderzoeksfocus de verplaatsen van de structuren, factoren en processen die de samenwerking als geheel beïnvloeden naar de onderling verbonden interacties die zijn bouwstenen zijn. Op deze manier, voor zowel de strategische en de operationele niveaus, heeft mijn proefschrift de inter-organisatorische samenwerking opnieuw geformuleerd, niet als gevolg van individuele acties van een paar uitverkorenen, maar van hun interacties als vertegenwoordigers van hun gemeenschappen. Dit perspectief kan de stap zijn voor een nieuwe en spannende golf van inter-organisatorisch procesonderzoek, waar de veelzijdige natuur van samenwerkingen doelbewust en in detail kan worden onderzocht.

Mijn studie van boundary spanning processen op het inter- in plaats van intra-organisatorisch niveau heeft ook bijdragen geleverd aan deze

onderzoeksstroom. Ten eerste erkent mijn nieuw ontwikkelde begrip van multilaterale boundary spanning dat de betrokkenheid van de belangrijkste actoren even belangrijk is in inter- als in intra-organisatorische processen. Dit geeft ook inzichten buiten het onderzoek in inter-organisatorische contexten, omdat de *intra*-organisatorische inspanningen van de boundary spanners als aanvullend – en misschien ook secundair – aan hun werk als *inter*-organisatorische boundary spanners werden ingedeeld (Williams, 2002). Ten tweede heb ik nieuwe inzichten geleverd over het ontwerp en de ontwikkeling van beide boundary spanning mechanismen. In het bijzonder heb ik aangetoond dat ze ineffectief zijn wanneer één gemeenschap boundary objecten (hoofdstuk 3) ontwerpt of boundary spanners traint (hoofdstuk 4) zonder de samenwerkende gemeenschap te betrekken. Bovendien biedt mijn proefschrift, voor zover mij bekend, de eerste gedetailleerde verkenning van het ontwikkelingsproces van een boundary spanner. Ten derde en ten slotte heb ik de huidige inzichten over de ongelijke ontbinding van pragmatische grenzen uitgebreid. Uit eerder onderzoek is gebleken dat, wanneer een partij krachtiger is dan de andere, de pragmatische grenzen tussen hen kunnen worden opgelost op een manier die gunstiger is voor de sterkere partij (Carlile, 2004). Inzichten over het onderwerp worden typisch ontwikkeld vanuit het perspectief van de krachtigere partij, gericht op hoe zij het samenwerkingsproces kunnen beïnvloeden. Mijn proefschrift heeft in plaats daarvan het boundary spanning proces uit het perspectief van de minder krachtige partij blootgelegd.

Tenslotte maakt mijn proefschrift ook een aantal bijdragen aan de gezondheidszorg, met betrekking tot zowel onderzoek als praktijk. Ten eerste draag ik bij aan het academische veld door mijn focus op inter-organisatorische samenwerkings*processen*, in tegenstelling tot hun typische voorkeur voor het bestuderen van antecedenten en uitkomsten (Minkman et al., 2009; Wells & Weiner, 2007). Door de ontwikkeling van twee zorgnetwerken te onderzoeken op een aantal niveaus en vanuit een aantal perspectieven heb ik een veelzijdige verkenning gegeven van de uitdagingen die betrokken zijn bij het opzetten, implementeren en uitvoeren van inter-organisatorische samenwerkingen – op de werkvloer, in de vergaderzaal, en via email. Mijn tweede bijdrage ligt in het opstellen van de soms gespannen interacties tussen managers en zorgverleners (Kuhlmann et al., 2013; Kuhlmann & von Knorring, 2014; Numerato et al., 2012) wat betreft kennisgrenzen. Op deze manier worden de communicatieonderbrekingen tussen deze verschillende actoren beter

uitgelegd, van een algemeen verschil in beroep of organisatiecultuur als de impactfactoren (Klopper-Kes et al., 2010; von Knorring et al., 2016), naar een begrip van de meer specifieke gaten in informatie, begrip en/of onderhandeling.

Meer in het algemeen, en relevant voor zowel zorgnetwerken als samenwerkingsverbanden in andere sectoren, suggereren mijn bevindingen dat actoren in inter-organisatorische samenwerkingsverbanden een meer proactieve en toegewijde aanpak zouden moeten nemen om de samenwerking op te zetten en uit te voeren. Dit impliceert dat partijen aan *beide* zijden van *meerdere* "hekken" – d.w.z. planners, uitvoerders en beoefenaars van *alle* partnerorganisaties – actief deelnemen aan de inter- en intra-organisatorische ontwikkelingen. Dit achterwege laten kan leiden tot valse of optimistische aannames en de verspreiding van sluimerende belangenconflicten. Met name in het geval van issue selling contexten is het van belang dat besluitvormers hun afhankelijkheden en verschillen ook expliciet aanpakken – in plaats van deze taak alleen maar bij issue sellers neer te leggen. Dat gezegd hebbende, (pro) actief betrokken worden bij processen op meerdere niveaus stelt grote eisen aan de tijd en energie van actoren. Daarom moeten actoren, zoals wel vaker, streven naar een evenwicht tussen de voordelen van (pro)actieve multilateraliteit en het uitputten van hun middelen.

About the author

Daniela Patru was born on January 3rd, 1986, in Craiova, Romania. She received her high school diploma (*Gymnasium* equivalent) from the "Fratii Buzesti" National College in Craiova in 2004. After that, she pursued a Bachelor's degree in Business Administration at the Academy of Economic Studies in Bucharest, Romania, which she completed in 2008. In September 2009, Daniela started a Master's in Business Administration at Radboud University, Nijmegen, the Netherlands. She completed this programme with a focus on Strategy, in October 2010. During her Master's programme, she took part in an international research project on the role of culture in foreign direct investment in Morocco. This project's findings were published in 2010 by *Océ-Nederland*, Nijmegen.

In 2011, Daniela started her PhD trajectory at the Institute for Management Research of Radboud University. During her project, she presented her papers at international conferences on management and organization, such as the *Academy of Management Conference*, the *Process Research in Organization Studies Conference*, and the *European Group for Organizational Studies Colloquium*. So far, her research has resulted in one published article (in the healthcare management journal *Medical Care Research and Review)*, which was co-authored with her supervisors.

During her time as a PhD candidate, Daniela acted as the PhD representative for the Institute for Management Research in the university's Works Council. In this role, she actively advised the university's Executive Board on issues regarding PhD policy and internationalization, helping to develop Radboud University's first international staff and student monitor, and a vision on the ideal PhD trajectory. She also taught in the Nijmegen School of Management's Business Administration Bachelor programme, and supervised Bachelor's and Master's theses.

Currently, Daniela is the Doctoral Officer of the Institute for Management research, and plays a key role in developing the institute's PhD community and improving its PhD policies and procedures. She also continues to teach in the Business Administration Bachelor programme, in such courses as Academic Skills, Qualitative Research Methods, and Introduction to Business Administration.